An Address
ON
SOME SUBJECTS OF PUBLIC AND PROFESSIONAL INTEREST.

Delivered before the South-West London Medical Society on Feb. 8th, at Bolingbroke House, Wandsworth Common,

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MR. PRESIDENT AND GENTLEMEN,—Allow me to congratulate you upon the birth of the South-West London Medical Society and to express the pleasure I feel at being allowed to do something in the way of help towards its start on what, I hope, will prove to be a successful career. Permit me also, as one of the acting staff of this very excellent local institution, to welcome you within its walls, for here practical work based on scientific knowledge is our, as it is your, study. I am quite sure that you have done a wise thing in forming this society, and particularly in establishing it as an independent concern; for, being free and unattached to any association, you are your own masters and have no need to trouble yourselves with either the politics of the profession or the government of public bodies and corporations, but can leave these important matters in the hands of those to whom, from circumstances or liking, their management has been consigned, and confine your attention, primarily, to the everyday professional work we are all engaged in, and, secondarily, to the subjects of common public and professional interests which we all have so much at heart; for I take it that it was for the consideration of these two branches of professional work and professional interests that this society has been established. It is clearly unnecessary for me to dwell upon the advantages which follow upon the social gatherings of medical men who in a neighbourhood like this are by their work much separated; or upon the good which follows the discussion of difficult cases or of set papers on professional subjects, for the foundation of this society is a proof of your appreciation of the value of such a practice, and any words of mine would only tend to emphasise your views. I would, however, like to add that in discussing a case when you can have the patient before you—for under such circumstances accuracy is helped—discussion is encouraged and made more valuable, and the patient's interest may be enhanced. Let us never forget that our patients' interests are those we should always primarily consider, and that in all our practical and scientific professional work the public good is its ultimate object; but at the same time let us bear in mind that in order to realise this leading purpose it is all-important for the interests of the public as well as for the due exercise and dignity of our profession that every practitioner of medicine should hold a perfectly independent but responsible position, and that in his professional work he should be left perfectly free from lay control, although amenable to lay censure. It is also equally necessary that he should be adequately paid for his professional services by all classes according to their means. Under these circumstances all measures, whether under the guise of charity or called "provident," and all hospitals, general, special, or private, which encourage the public to seek professional advice for little or nothing, are to be discouraged as helping to pauperise and degrade the public at large; and all members of our profession who induce or tempt the public so to do by means of private hospitals, competing private dispensaries, touting clubs and associations, or who are ready to accept at a reduced figure, over the heads of their neighbours, appointments which have been put up by laymen, as it were, to auction or competition, adopt the surest means within their power to lower the position of their profession in the estimation of the public and at the same time do injustice to the profession and public by not giving to the latter the best services the former can supply, whilst they must, in addition, lose their own self-respect, even if they happen to gain cash by their unworthy actions. For let me ask, How is it possible for a man who is ill-paid or overworked, or both, either to give, in the interests of the public, the professional attention it is essential for him to bestow on every case he has undertaken to attend; or to maintain, in the interests of the profession, the position to which he is entitled and his own self-respect?

We all know that any measure which encourages, either in a profession or trade, underpay and overwork leads to bad work. In our profession such deficiencies are no less harmful—nay, they are more so, as its issues to the public are either life or death, health or ill-health, and to the profession either a position of pleasure, honour, and respect or one of degradation and unrequited labour. With these leading thoughts before us, let us approach the consideration of some of the more important subjects of public professional interests, and particularly those which have a bearing upon the mutual interests of the public and profession—although I hope I have already made it clear that the interests of the public and profession are in a great measure identical, and that, whilst anything which lowers the status of the medical profession is most injurious to public interests, everything which tends to raise it is beneficial.

The questions I propose briefly to bring before you, and upon which I would invite your consideration, are the following: the working of public provident dispensaries; the conditions under which private dispensaries should be worked and sanctioned; the conditions under which country and town clubs should be worked; the good or evil influences of medical aid associations worked by laymen for their own profit; the duties of unqualified assistants; and how midwives, or, what seems a better term, "nurse midwives," are to be educated and utilised for the public good. All these questions, with many others, are well worthy of the attention of your society—one might be taken up each session and well threshed out; for let me say that the solution of most, if not of all, these questions must rest in the hands of the general practitioners of this country; and I must also express my conviction that clearly formed opinions upon each and all of these subjects, formulated after due discussion by such societies as this, would do more to mould the minds of the professional and lay public for good, and form a better basis for future corporate action, than any opinions emanating from the General Medical Council or the two Royal Medical Corporations.

Practical questions of the kind enumerated should be primarily settled by the great body of the profession in a practical manner, and it is through these local societies that the matured and independent opinion of the profession should be expressed. When the profession has spoken, extraneous aid may be sought. The press is always ready to give help to any movement, but for the profession to leave important questions such as these for the press to solve is a mistake, for remember that what is called the press is but the product of a handful of active men, and that the great "we" in type is too often identical in life with a little "I." It is likewise a mistake to look to the General Medical Council or Royal Corporations to give, under existing circumstances, judicial opinions upon these and other complicated questions, as it is urging these bodies to seek for powers, since they do not possess them, to enforce their views when formed; for these important bodies have enough to do to carry out their respective registration, educational, and examination duties, as well as to purge their registers of men who have openly and unquestionably offended against the laws of their country or their corporation. To ask these bodies to consider and solve ethical questions connected with professional work and professional advancement, and, having solved them, to seek powers to enforce their views, is too much to expect, even if it were desirable; or even if in this free country, in which self-government is still prized, and patent medicines, good, bad, and indifferent, are made a source of public profit, and quackery in all its forms is permitted, and at the same time better protected than are registered practitioners of medicine, there would be the smallest chance for such full powers to be granted. When the profession as a body has, however, spoken upon any of these questions greater powers may be obtained; for I must tell you that six years ago, when the Royal College of Surgeons applied to the Privy Council for some enlargements of its disciplinary powers, its requests were refused—not, however, on account of any objections which were raised by the Privy Council to the powers asked for, but on account of the opposition of certain Fellows and ill-informed Members of our own body, who had placed themselves in an antagonistic position to the action of their College and had made a great noise about the matter by means of the press and other ways. If this opposition had not taken place the disciplinary powers of the College would have been now enlarged to the advantage of the profession generally as well as of the public. I would, however, wish to remind you that the General Medical Council has done, and is now

doing, good work in putting down the serious public offence of "covering" and of giving false certificates, more particularly of death, by unqualified practitioners. It does good also in expressing decided opinions upon gross ways of advertising and other professional delinquencies as brought before their notice, and I feel sure that the report upon medical aid associations which was issued last summer will help the public and profession to come to a definite conclusion as to the merits or demerits of these new trading bodies. I would also assure you that my own College, the Royal College of Surgeons of England, with its present limited disciplinary powers, has not been, and is not, idle in the same direction, for there are few meetings of the Council before which some complaint of undue modes of advertising, and of the employment of secret remedies, with other illegitimate methods of carrying on the "medical trade," is not brought; and if the offence charged is not serious enough to justify the name of the offender being taken off the College books a serious expression of opinion on the part of the Council upon the nature of the act complained of, and a decision that the misdemeanour is inconsistent with the declaration made by the delinquent, when he was admitted a Member of the College, "that he would demean himself honourably in the practice of his profession and do his utmost to maintain the dignity and welfare of the College," are often enough to induce him to mend his ways and adopt more legitimate means of carrying on his work. At any rate, of this I am sure, that these expressions of opinion upon the part of the Council do great good and tend to stop ways which lead downwards; and I likewise believe that if the attention of the Council were drawn more frequently by the Members of the College to methods which weak men adopt from their weakness, and which stronger men know are injurious both to the profession and the public, the actions of the Council for good would be more frequently repeated to the great advantage of the profession and the suppression of bad ways. It might be well for you to consider whether duties of this nature should not be part of the work of such societies as your own. A society could well do what individual men might shrink from. I may, however, tell you that during the last six years—besides all Members of the College who have been convicted of criminal offences—five Members have been removed from the list of Members for issuing advertisements which the Council regarded as "prejudicial to the interests" and "derogatory to the honour of the College," as well as "disgraceful to the profession of surgery"; and four others who had offended against our by-laws in the same way have simply been let off after they had made "declarations" that they would not so offend again; whilst one other Member was removed for being associated with a disreputable museum. Thus ten Members have been brought before the Council in six years for having seriously offended against the by-laws of the College, besides many others who have been satisfactorily dealt with by the President for minor offences. But let me beg of you not to rely upon the royal corporations for the help which, to be effective, must come from yourselves. Let the great body of the profession pronounce with no uncertain voice, through local societies, county associations, and private societies, that *this*, *that*, and *the other method* of seeking or obtaining practice and noteriety is unprofessional, derogatory to the interests of the profession, and injurious to those of the public. Let such societies as yours, and all others like it, exclude men who do such wrongs from their lists of members, and let the excluded members know the reason why they are so excluded. The tone of the profession will then begin to improve, and men who enter it saturated with the "spirit of trade" will become alarmed and be led to think; but, above all, let the united voice of the profession express the opinion that only men of high culture should be admitted within its portals, that a broad preliminary education should be deemed to be essential for every man to enjoy before he enters upon the special study of medicine, and that at this stage of his medical career a carefully conducted examination should be required; we may then with some confidence feel assured that the "professional spirit" will grow and acquire a force which will relegate the "trade spirit" to its proper place—which is secondary to the professional—and that then all may be expected to go well. For my own part I believe that *public provident dispensaries* may be made of great value both to the public and profession: to the public, by helping a large number of the wage-earning and poorer members of the community from falling into the pauper class, as well as by encouraging in these classes the spirit of thrift and independence which is so essential for national prosperity; and to the profession by enlarging the field of observation for the local practitioners and by securing for them reasonable remuneration for their professional services, with many other secondary advantages. But in order to secure these desirable ends it is all-important that only such members should be admitted to the advantages of the dispensary as are of the wage-earning and poorer classes, and that the scale of admission charges should be calculated in single persons as upon a percentage of their wages, and in families upon the aggregate wages of the family or household and not upon that of the member only in whose name the dispensary ticket may have been taken out.

I should like to see in every district one or more public provident dispensaries for the "well-to-do poorer classes" as we now see dispensaries for the pauper class. I would have these dispensaries managed by a committee of laymen, medical men, and representatives of the classes in whose interests they exist. Their doors should be open to registered members, but their rules should be such as to allow of any of the "well-to-do poorer classes" being able to obtain speedy help and relief upon well-defined terms from any one of the medical men of the district in the event of any sudden illness or accident taking place.

With parish dispensaries and provident dispensaries of the kind alluded to, the poor, and "well-to-do poor," would be well looked after, and the medical officers of both would be fairly treated, for any applicant to one or other of the dispensaries of the wrong class could be passed over. Any medical man in a dispensary district should have the power of placing a poor patient upon his dispensary list and of attending him as a dispensary patient, and any poor patient should have the power of consulting any medical man of his district upon dispensary terms. With the existence of these public provident dispensaries so-called *private dispensaries* would not be needed, and consequently should not be allowed, since such dispensaries are too often the mere speculative adventures of needy men who trade upon the poor for their own ends, and certainly not for the poor's advantage, whilst they degrade the profession in public estimation and doubtless degrade the dispensary medical officer to the level of a small and unscrupulous tradesman.

Town and country clubs are institutions to be encouraged, for the same reasons that have been adduced in favour of public provident dispensaries; but it seems to me that the scale of payments now required should be somewhat higher than that which has been demanded in past years, for wages have been much raised, and the medical club charge should be a percentage rate upon wages. With the adoption of this suggestion I regard club work, when honestly carried out, as beneficial to the public and valuable to the medical practitioner, who not only obtains fair remuneration for his work, but carries out his responsible duties untrammelled by lay interference. As to what are now called "medical aid associations," I am at a loss to know where, in most of them, good is to be found; for it is clearly degrading for any qualified medical man to do professional work as the paid servant of a committee of illiterate or even educated laymen, and consequently to work under their control; and it is certainly injurious both to the public and profession that this medical servant should be required to look after any number of members admitted by a lay committee to the supposed advantages of the association, upon terms concerning which the medical officer has no voice, and when he knows that he is often called upon to treat many more patients than can possibly be treated with due care and proper skill.

It is likewise a clear wrong both to the public and profession that members should be admitted to these associations who are not of the wage-earning or allied classes, and who are well able to pay the limited charges of a private practitioner. This medical aid association is a development of the medical club, but it is a growth of a diseased nature, and it ought to be either brought into line with public provident dispensaries or club practice, as sanctioned by and based upon the Friendly Societies Act, or it ought to be rooted out of professional public work.

As to the duties of unqualified assistants, I believe all will agree with me that they should be reserved to home duties, not far beyond those of a dispensing assistant. No visiting and dispensary or outside club work ought to be entrusted to them, beyond a visit of inquiry; nor ought they to have power to sign professional certificates of any kind. If they are employed beyond these limits harm is certain to ensue.

And, lastly, let me say a few words upon the burning question of midwives, for we all must admit that midwives are necessary, since in some districts they divide the midwifery

work between them, and in all districts they hold an important position in the social scale. If, then, midwives are necessary, it is equally evident that they should be efficient, for if they are not efficient they are dangerous assistants and had better be away, and if they are to be efficient the conclusion is certain that they must not only be made so, but that their knowledge should be tested by competent examiners before they are allowed to embark on the responsible and serious duties they have undertaken. With respect to the question of their education, it goes without saying that the teaching must be practical, although based upon a certain amount of anatomical knowledge, and that this practical knowledge is only to be acquired at lying-in hospitals which are sufficiently well officered to afford a guarantee that the teaching will be enough, but no more than enough, to ensure competency to attend a natural labour and to know when true professional assistance is required, on account of the many difficulties and dangers which may arise. For I would wish "midwives," as they are now called, to be regarded as "nurse midwives," and even to be named such, since the term carries with it the meaning that they are really nothing but skilled nurses educated for special work and that they are always acting either directly under medical supervision or under the clearest instruction that they are to call in medical professional assistance in every case of suspected or real difficulty or danger. Finally let me ask, How is this examination work to be conducted, and who is to conduct it? For my own part, I feel strongly that such important public work should not be entrusted to any private society or institution, however eminent, but that it should be placed and left in the hands of some responsible public body. I do not mean such a one as a county council or allied body; but I would wish it to be undertaken under the direction of the two royal medical colleges of England—the Royal College of Physicians and the Royal College of Surgeons—by means of examining boards, central or district, composed of either specialists or general practitioners, or of what would be preferable, both combined, as may after full consideration be deemed best, the curriculum of study as well as scope of examination resting entirely with the two Royal Colleges.

I must now bring these somewhat desultory remarks to a conclusion. The subjects I have brought before you are all of importance, and my views upon them have not been formed hastily; for I have been called upon to consider them with care when President of the Royal College of Surgeons and as a Member of the General Medical Council. Whether these views are right or wrong I leave to you to decide; for their full consideration is well worthy of the attention of this and other allied societies. Whatever solution you may find for the different problems which I have brought before you, of this I am sure—that the conclusions you come to will help the final solution of them all and so tend to the advantage of our profession and the welfare of the public.

PLACES AND COMMONPLACES IN THE TREATMENT OF RENAL DISEASE.

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I PROPOSE to bring together, perhaps in a somewhat unconnected manner, some of the impressions which have been left upon my mind as the results of experience in regard to renal disease, taking those especially which would seem, I will not say to have practical value, but at least to have a practical bearing. I shall introduce some considerations with regard to climate which may furnish useful guidance in the treatment of the granular kidney and the more chronic varieties of nephritis in persons who belong to what may be called the movable classes.

First, as to acute nephritis or acute renal dropsy. The disease has a tendency to recovery qualified, especially when scarlatinal, by a tendency to fibrosis. To assist recovery warmth in bed and liquid diet are essential. The food should consist not only of milk, but should also comprise thin beef-tea or light animal broths. Water and aqueous drinks should be given freely; alcohol prohibited. Bread-and-butter may be generally permitted, and farinaceous food in some variety may be early introduced. After a calomel purge it will often suffice to give a little alkalising saline such as potassio-tartrate of soda (a great favourite with me) or tartrate or citrate of potash. These are laxative and mildly diuretic and beneficially reduce the acidity of the urine, which in such cases is apt to be excessive. If anything more is needed to keep the bowels moderately loose a morning potion of sulphate of magnesia should be superadded. Digitalis ought to be given only if there is dropsy or if the urine is very scanty. With the exception of digitalis and such mild salines as have been mentioned the whole class of diuretics may be avoided as either useless or injurious. Preëminent among the latter are cantharides. Though the urine may contain blood it is seldom advisable to give medicines with the object of stopping the discharge, which depletes the kidney, generally to its advantage. If the loss is profuse and persistent and there is much anæmia with it some astringent form of iron, the sulphate or the perchloride, may be given with an aperient, such as a little sulphate of magnesia, or in an extreme case iron alum in the same company. Should the cerebral indications of uræmia present themselves they ought to be treated on principles to which I shall presently refer.

Next, with regard to chronic albuminuria I will put aside for the present that of lardaceous origin and speak with reference only to the granular or fibriotic kidney. Many are the reminiscences which testify to the lengthy and almost indefinite quiescence of the disease. A man may suffer from it for a quarter of a century and be practically none the worse, though such cases are not common. The heart will be hypertrophied as a salutary adjustment, and the dropsy which so often marks the beginning of the end may be indefinitely postponed. For tens of years there may be no obtrusive symptoms or anything to prevent the patient, if he be one, from pursuing his usual way of life, presuming that this is one of ordinary moderation and care, and that he does not wholly ignore his disease. It may even be better for him to remain in ignorance of it than to be over-treated or over-restricted. The physiological agencies, diet and climate, first present themselves for consideration. As to diet, in a quiescent case I commonly advise temperance rather than austerity—one meat meal, one fish meal, and one meal without meat or fish. Farinaceous and vegetable food without restriction, milk without stint but without insistence, watery drinks freely, and the less alcohol the better. I believe a purely milk diet is not generally advantageous. One of the hardest pulses I ever felt belonged to a man who conscientiously restricted himself to a milk diet and ultimately died from apoplexy. It is a matter of importance, and even of life, that in certain forms of renal insufficiency the free drinking of aqueous liquids should be permitted and even encouraged. When the urine is of low specific gravity and poor in quality it can provide sufficient exit only when it is in large amount. It is a condition of life that quantity should make up for quality. The quantity is maintained by that of the water introduced as drink. In such a case as I am supposing the solid food should be light and the liquid abundant. I have seen fatal consequences follow the reversal of this rule in the treatment of the advanced granular kidney.

As long ago as 1867[1] I took upon myself to advocate the employment of a warm climate in the treatment of chronic renal disease—a therapeutical measure which has since been widely resorted to. If it be said that the results are disappointing, this must be taken as implying no more than that too much is expected. No climate can turn fibrous tissue into tubes or a granular kidney into a healthy one; but the crippled organ may be relieved of work, the insufficient gland may be made sufficient, and the easily irritated structure may be saved from inflammatory attacks by the influence of some place where cold winds cease from troubling and the kidneys are at rest. The desiderata may be said to be warmth, uniformity of temperature, and dryness of air. I think that the first consideration should be the temperature, regulating as it does the action of the skin and of the kidneys. The mean temperature, as expressing broadly the general attitude of this over-ruling physiological influence, is perhaps the most important guide in the choice of a climate. The daily range, or variability within each twenty-four hours, is of obvious importance, but probably less so than is the daily mean temperature. A great daily range implies a corresponding fall in some part of the twenty-four hours, which must be of paramount importance to persons exposed. But seekers after health are not like shepherds who watch their flocks by night, nor need they be much out of doors after sunset. The low temperatures are at night, or

[1] Pathology and Treatment of Albuminuria, first edition.

at least after sunset, when the careful valetudinarian will not be fully exposed to them. It is therefore probable that the daily range is of less importance to a person who is his own master than either the mean temperature or the relative humidity. The latter, it is needless to observe, does not mean the absolute amount of moisture in the air, but its degree of saturation, or, in other words, its capacity for water, which varies with the temperature. Upon this depends the rate of evaporation, whether from the wet-bulb thermometer or from the skin and lungs. A low relative humidity encourages evaporation and vicariously relieves the kidneys. A human being is virtually a wet-bulb thermometer, by which instrument the relative humidity is ascertained. When the wet-bulb evaporates much so do the skin and lungs. Hence it may be laid down that the chief atmospheric conditions to be desired in renal disease are a high mean temperature and a low relative humidity.

I here introduce a tabular statement, giving the three essential particulars for the cold months January, February, and March at the following winter resorts. I fear they are not all equally trustworthy, nor do all relate to the same years; but the observations may serve as a guide where no better ones are available.

Winter Climates (Mean of January, February, and March). After London the Places are arranged according to Mean Temperature.

Place.	Authority.	Mean temperature.	Mean daily range.	Mean relative humidity.
London (Norwood)	Mr. Bayard, Meteorological Society (ten years)	39·7° F.	10·7° F.	86
*Davos Platz	Dr. Haggard (twenty years)	23·1	46·8	80
Margate	Mr. Bayard, Meteorological Society (ten years)	39·9	9·1	87
†Worthing	Mr. Bayard, Meteorological Society (ten years)	40·1	9·9	87
†Brighton	Mr. Bayard, Meteorological Society (ten years)	40·6	10·2	83
Bude	Reports of Meteorological Society (ten years)	41·5	10·6	—
Bournemouth	Dr. Compton, quoted by Dr. Dobell (eighteen years)	41·6	9·7	85
Torquay	Dr. Symes Thompson, Medical and Chirurgical Society (ten years)	41·6	9·9	83
Ventnor	Mr. Bayard, Meteorological Society (ten years)	42·2	9·3	85
Falmouth	Royal Cornwall Polytechnic Society (ten years)	42·9	7·1	83
†Penzance	Mr. W. Hosken Richards (ten years)	43·2	6·0	—
†Ilfracombe	Mr. F. C. Bayard, Meteorological Society (ten years)	43·4 (?)	7·9	85
Guernsey	Mr. F. C. Bayard (Meteorological Society (ten years)	43·7	7·6	87
†Scilly Islands	Mr. W. Thomas, Cornwall Polytechnic (ten years)	45·3	6·4	87
Cannes	Dr. Marcet, Meteorological Society (three years)	49·2	12·0	73
San Remo	Meteorological Observatory, quoted by Dr. Hassall (one year)	50·0	13·0	71
Algiers	Dr. Tothill (nine years)	54·6	12·6	66
Cairo	Mr. F. M. Sandwith (five years)	57·8	17·5	64
Alexandria	Mr. F. M. Sandwith (nineteen years)	59·4	11·9	65
Las Palmas (Canary)	Mr. Morley Douglas (one year)	61·8	11·2	—
Madeira	Dr. Grabham (ten years)	62·0	8·6	73
Luxor	Mr. F. M. Sandwith (one year)	62·0	31·2	49
Calcutta	Report of Sanitary Commissioner for 1893 (one year)	69·7	—	66
Maritzburg (Natal)	Dr. Mann (one year)	70·3	17·6	73
Cape Town	Dr. Mann (one year)	72·4	15·9	67
Bombay	Annual Report of Sanitary Commissioner for 1893 (one year)	75·2	—	63
Madras	Annual Report of Sanitary Commissioner for 1893 (one year)	79·0	—	78

* The statements concerning Davos Platz are based on three daily observations—namely, at 7 A.M., 1 P.M., and 9 P.M. If the maxima and minima had related, as at other places, to the whole twenty-four hours the daily range would have been shown to be greater than is here represented.

† In estimating the climatic differences between English places, which are necessarily small, it has to be borne in mind that something may occasionally be due to the placing of the instruments in an exceptionally advantageous position rather than in one which fairly represents the neighbourhood. It is possible that the high temperature records from Ilfracombe may have their explanation in some such accident. One may hesitate to accept as a general truth that Ilfracombe is warmer than either Falmouth or Penzance. Brighton, again, is represented as being slightly warmer than Worthing; common experience indicates a difference in the opposite direction. Finally, it is probable that as between Penzance and the Scilly Islands the mean daily range is greater at the former than it is at the latter, notwithstanding that the figures quoted present Penzance as having a slightly less range than the Scilly Islands.

The table may be of assistance in the choice of a winter resort, but it must be fully allowed that many items have to be regarded which are not here expressed. Exposure to wind is one, sunshine and rainfall are others. Experience of the place is the best guide, and other things beside climate have to be considered. I have known an exacerbation of chronic nephritis to be attributed, and with apparent reason, to foul odours. We have to put one thing against another and make the best compromise possible. I have sent many patients to the Riviera, and have on the whole been disappointed with the results. There the daily range of temperature is considerable, the evening fall is abrupt, and the difference between sunshine and shade is great. These drawbacks belong to other subtropical places, but at some of these there are greater compensations. As compared with the Riviera the south of England has the advantage of greater uniformity and the disadvantage of greater humidity. I believe Algiers to be preferable to the Riviera and Egypt to be preferable to both, notwithstanding the great daily range of temperature. The special advantage of the Egyptian climate would appear to be best obtained at Luxor or some similar place. The great evening fall of temperature must of course be specially guarded against. Theoretically Cape Colony should be an excellent winter resort in renal disease, the English winter being exchanged, after no very laborious journey, for the African summer; but some who have been there do not report favourably. Dr. Grabham, who has kindly supplied the figures in the table which relate to Madeira, tells me that he has there witnessed good results in cases both of post-scarlatinal nephritis and advanced Bright's disease. I have myself had no experience of Madeira as a resort in cases of renal disease, but the particulars of its climate testify to its suitability in regard to mean temperature and equability. Anyone interested in the climate of Madeira may refer to an article entitled "The Island of Madeira" that is being published in THE LANCET.[2] I think that patients who cannot travel as far as Egypt or Algiers, or at least further south than the Riviera, may be content with a selected spot in the south of England. I have known many patients to do well at Bournemouth and Torquay; Ventnor deserves more consideration in this respect than it has received; while Falmouth and Penzance promise better than any one of the three. As regards the last two places, it is to be regretted that at present there are no data enabling a comparison of their relative humidity, though, under the energetic influence of Mr. Silvanus Trevail, the County Council of Cornwall have originated observations which will supply the needed information. I have an impression that Falmouth will be found to be less humid than Penzance; should it prove so it will be the better resort in renal disease, but on this point exact information is required. I have never found a patient who was willing to spend the winter in the Scilly Islands; the humidity of the air and the exposure to storms are objections, while social interests are wanting, though an artist or student of Celtic antiquities may employ his time pleasantly enough.

Next as to treatment by medicines. The first necessity is to keep the bowels regular and loose, or at least free. Speaking now only of chronic and quiescent cases, a good practice is to give a ferruginous laxative on going to bed and on getting up, say, a drachm of aloes wine, a drachm of sulphate of magnesia, ten minims of the tincture of the perchloride of iron, and perhaps two or three minims of liquor strychniæ; or the decoction of aloes and tartrate of iron may be substituted for the wine and perchloride of iron, and sulphate of soda for sulphate of magnesia. The doses should be adjusted so that the bowels may act twice a day or at least three times in two days. If the urine is over acid a suitable mixture may be made of tartrate of iron with tartrate of potash, and sulphate

[2] THE LANCET, Jan. 6th, 13th, 27th, and the present is us.

of potash or soda. Iron must be given with caution, and omitted if the patient is full-blooded, over-fed, or constipated; anæmia is, of course, an indication for it.

The normal termination of the granular kidney is by uræmia, though there are many pitfalls by the way. In order to obvate this tendency to a fatal issue sweating should be enforced where the tendency is declared by headache, vomiting, or otherwise. A Turkish bath at regular intervals, every ten days or a fortnight, may long ward off what would otherwise happen. When from the distance of the bath or the state of the patient this is not available the lamp bath should be used at home; and I may speak especially of a modification of it which for some years past I have been in the habit of employing. When a patient is in mortal peril one may hesitate to enforce so powerful a measure as the enclosure of the whole body in hot air; his hold of life may be feeble, and there may be a fear of disturbing it; but if the heated air is applied only to the feet or below the knees much good may be done, and, so far as I have seen, never any harm. One wicker arch only is used instead of several; the hot air thus limited will make the lower extremities perspire freely, while the whole body will do so to a less degree. I have found this partial bath—"the leg bath," as I call it—to be invaluable. If this procedure does not cause the patient to perspire, as is sometimes the case, pilocarpine may be injected subcutaneously before the bath is applied. Another preliminary measure which is useful in such cases is to place the patient for two or three minutes in a bath of very hot water, say, at 110° F., before the hot-air bath—which in such a case would, of course, involve the whole body—is applied.

As dropsy is one of the most prominent symptoms of albuminuria I will say a word or two about its treatment. Nature's cure for renal dropsy is hypertrophy of the heart.[3] This may be presumed to act by way of the veins; the increased suction power of the thickened left ventricle must draw upon these channels and so pump out the water-logged tissues, while the hypertrophy of the right ventricle, slight but real, must likewise help on the venous circulation. Renal dropsy, therefore, tends to recovery, but the process is slow and needs to be expedited. Œdema of the legs, whether renal or cardiac, is relieved by posture—not merely moved, but removed. Beyond this, measures of two kinds tend to benefit renal dropsy—those which lessen the contents of the vessels, and those which increase the force of the heart. Digitalis, I think, is almost invariably indicated; it probably acts upon the heart and vessels in the first place, and upon the secretion of the kidneys only secondarily. I do not think that the way this drug acts in renal dropsy is entirely clear; it is known to increase the contractile force of the left ventricle, but does it increase its expansile force? It is not known that it does so. No doubt the increase in the contractile force of the right ventricle must tend to relieve dropsy, but beyond that one does not see very clearly. However, whatever obscurity there may be about the *modus operandi* there is no uncertainty as to the beneficial result. Most reputed diuretics are useless and some, like cantharides, are injurious. I have learned to distrust and avoid the whole class, with the reservation of digitalis and the vegetable salts of potash, which, in addition to their other properties, are slightly diuretic. Hydragogue purgatives and hot-air baths have their use, and, I may say also, their abuse. Depletion may be carried too far and a condition of anæmia maintained by which dropsy is promoted rather than relieved. Exhausting measures ought, therefore, to be used with moderation and counterbalanced, according to circumstances, by food and iron. Among the purgatives which are useful in such cases the mercurials are not to be rigidly excluded, though they ought to be given seldom and in small doses. In considering the benefit to be derived from purgation and diaphoresis in renal dropsy it is not to be forgotten that the initial causes of this form of the disease are probably the contamination of the blood and its altered relation to the capillaries, and the circumstance that evacuation tends to carry off the peccant materials. The abdomen may be tapped with safety, by which means not only it, but the legs will be relieved; punctures of the legs by any process, whether with tubes or needles, should be avoided as being full of danger, however apparently trivial the operation.

Renal asthma, distressing and alarming as it is, admits of relief, and even of cure, by treating the uræmia in which it takes its rise. Ethers, alcohol, and nitrite of amyl are of temporary use; but the mainstay is in the evacuants, hot air baths, calomel, and the hydragogues. The pulse under these attacks often shows extreme over-tension, on lessening which they will abate or cease to recur.

With regard to the over-tension of the advanced granular kidney a caution may not be out of place. We should not attempt to lower the pulse-tension to an ideal of health, as the result would probably be death; the circulation is carried on under difficulties and only by means of increased force. The hypertrophy of the heart is a measure of salvation and the increased tension is a necessary condition. We should consent to a moderate increase of tension and seek to modify it only when it is excessive.

Mental disturbance is rare, but not unknown, in connexion with the advanced granular kidney. Depression or melancholy may long precede death. More immediately foretelling the fatal issue are the lesser degrees of wandering or delirium and what I suppose may be called "chronic mania," insanity with delusions. I have learned to regard the latter conditions as of evil omen.

To bring to an end these trivialities of practice I will say a word or two as to the treatment of the lardaceous disease and the relation of the alkalies to the morbid deposit. There is much to suggest potash as remedial. Apart from syphilis, the only ascertained cause for the disorder is suppuration, a process which necessarily entails a loss of potash. The relation of the discharge to the deposit is so direct as to suggest some such arithmetic as this: take pus from blood, and the lardaceous matter remains. This matter is distinguished from the normal constituents of the body by its deficiency in potash and by its ready solubility in alkalies. The suggestion cannot fail to present itself that the substance is deposited in consequence of a deficiency in the blood of the normal alkaline solvent; but there are in the living body complications which the test-tube cannot reveal, and therapeutics based only on chemistry are apt to miss their mark. The loss of pus which causes the lardaceous deposition is not only a loss of potash but of the white corpuscles in which it is contained; the loss of the organisms cannot be ignored, nor can potash by itself replace them. Then, again, it has to be considered that, however readily the lardaceous material can be eliminated from an organ by liquor potassæ after death, it is not quite so easy to get that reagent to bear upon the tissue during life. The material is dissolved only by the caustic alkalies, not by their salts, and the action of the blood upon these alkalies has to be considered. Nevertheless, I think it is wise, and I am sure it is harmless, to give a little liquor potassæ upon an empty stomach when suppuration is present; but general restorative treatment is what ought to be mainly relied upon—viz., a liberal diet and sea air, with iron and quinine and cod-liver oil. I have seen more good result from a sojourn at Margate than at any other place. When the lardaceous condition is due to syphilis the benefit produced by the long-continued use of iodide of potassium, possibly conjoined with iodide of iron, is remarkable. In order to obtain the greatest good from such medicines they should be given for years; I often propose two years as the duration of the course and have many times continued it for longer than this with advantage.

[3] See paper on Renal Dropsy in the Medical and Chirurgical Transactions for 1892, vol. lxxv.

THE ETIOLOGY OF CHRONIC HERNIA, WITH SPECIAL REFERENCE TO THE OPERATION FOR RADICAL CURE.

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THAT the operation for the radical cure of hernia is not in an ideal position will, I suppose, be admitted by all surgeons; the great majority of the profession do not look upon it with favour, being extremely doubtful of its permanent success, and their opinion is focussed in the statements of many of the leading authorities. Thus, Dr. William White of Pennsylvania, commenting on Richelot's results, says: "The general experience of surgeons everywhere is that at least from 40 to 50 per cent. of cases operated upon for the radical cure suffer from relapses."[1] Dr. Wyeth says: "I am averse to the operation for radical cure, except where strangulation has

[1] New York Medical Journal, 1891, vol. II., p. 630.

occurred or the intestine has become incarcerated, or the hernia has become so large that it interferes with the usefulness of the individual. I have never advised an operation except in such conditions, and never will until I see better results in efforts at radical cure."[2] Dr. Bull, in summing up a paper of his on the results of operations for this purpose, says: "The figures I bring forward are in evidence of the inefficiency of all operations for radical cure."[3] English surgeons hold much the same opinion. Birkett, in "Holmes' System of Surgery,"[4] in an article entitled "On the So-called Radical Cure," quotes with approval the words of Lawrence: "The operation affords no greater prospect of entire recovery than he [the patient] had without it, for after he has undergone an operation at the hazard of life the complaint may return, and the only protection against relapse is to wear a truss." Erichsen says in his "System of Surgery"[5] that "the only plan that is at the same time perfectly safe and permanently successful is the compression of a well-made truss." Dr. Mitchell Banks[6] considers that the term "a radical cure" is a misleading one, and the main reason is that "a man who gets a rupture has naturally a weak and yielding canal or ring, and when you have patched him you can only put him in the same position he was in before the rupture, because he will still be a man with a weak condition of his abdominal wall." Such pronouncements might be multiplied almost indefinitely, but it is needless to do so. Generally, it may be said, despite the personal enthusiasm of certain operators, that the great majority of the profession look upon the idea of a radical cure of hernia as something which may now and then happen, with great good fortune, but as certainly not a thing to be depended upon. There must be a reason for this state of things, and the surgeon of to-day can hardly be expected to accept such a position as final. So many things which were formerly looked upon as hopeless have been found to be practicable under new conditions and with new technique that we cannot but be hopeful that this difficulty, too, will be found soluble. Under similar circumstances, by going carefully over the factors which go to make up our conception of the condition requiring remedy some error has occasionally been detected in the primary ideas, some fault in the line of reasoning, or, finally, some trivial mistake in the technique, the discovery and correction of which have been followed by success; and the present communication is intended as an attempt towards so desirable a result. Practically in what is to follow congenital hernia will be excluded: first, because proper attention to the use of well-fitting trusses in early life will render any consideration of operative measures in the great majority of cases unnecessary; and, secondly, because the great difficulty in operations for the radical cure of hernia is most intimately connected with acquired and not with congenital hernia. I am anxious also to be understood as dealing, not with rare or curious—often described as "interesting"—cases, but as discussing the cases met with every day, the great majority of common, ordinary herniæ.

It will, perhaps, be well first to formulate what is generally taken for granted—viz., the prevailing ideas as to hernia; and the following, I believe, may be taken as postulates. (1) That hernia is a protrusion of viscera from their normal plane through the walls which ordinarily contain them; (2) that viscera which are normal, contained within walls of normal strength, do not protrude; (3) that if viscera protrude such a condition is due to (*a*) an inordinate length of their attachments (the mesentery), (*b*) an abnormal attachment of the mesentery to the back of the abdomen (Mr. Lockwood), (*c*) constitutional weakness of the walls and abnormal patulousness of the normal orifices (Dr. Mitchell Banks), and (*d*) effects of injuries, operations, sudden strains in lifting, &c.; (4) that reducible, incarcerated, obstructed, and strangulated herniæ are all varieties of the same condition; and (5) that the results of operation for radical cure upon all varieties should influence our prognosis as to the prospects of any one (this, when baldly stated, will probably not be admitted, but it is practically acted upon). Of these postulates I would draw more particular attention to the fourth—viz., that reducible, incarcerated, irreducible, obstructed and strangulated herniæ are all varieties of the same condition, varying only in the pathological appearances, the acuteness of their symptoms, and the urgency with which they require surgical intervention. Is this true? Leaving congenital hernia out of the question I suggest that all other cases of hernia are naturally divisible into two distinct classes, which have little or nothing in common—acute or strangulated and chronic or reducible herniæ, and that these are distinct in causation, pathology, and course, and that their treatment and the results of their treatment should also be considered apart. Under chronic herniæ I would include incarcerated and obstructed herniæ, as these terms merely emphasise certain incidents or modifications in the life history of chronic hernia.

Causation of hernia.—The distinct exciting causes of acute hernia are doubtless those usually given—viz., strains, sudden exertions, such as lifting &c.; but these can never, as I hope to show later, produce a chronic hernia, the actual efficient causes of which have certain peculiarities. They are comparatively gentle, they act continuously or frequently, with short intervals, and from within; they are more or less habitual, so that they are often lost sight of, and they are usually removable or preventable. One might say that the causes of acute hernia act rapidly, forcibly, desperately; those of chronic hernia slowly, gently, and with malice aforethought. In legal language the one is "manslaughter," the other "murder." The one is unavoidable but happens seldom, the other curable or avoidable, but happens frequently. The curability or avoidability of the cause is important, inasmuch as it follows naturally that the results of a cause which has ceased to act can with much more certainty be removed than those of a force which is still in operation.

Pathological appearances.—The pathological appearances will be referred to again. They may here be simply mentioned. The peritoneal sac in chronic hernia is slowly produced and is never tightly distended; it lies in folds at the point of exit from the abdomen. These folds radiate outwards and upwards over the parietes and tend to unite when once the efficient cause is removed, so as to form a collar at the level of the rings. The sac usually becomes thicker as time goes on, being sometimes ossified or otherwise changed, but always in the direction of hypertrophy. In acute hernia it is thin, tightly distended, and possesses no folds.

Course of the malady.—Chronic hernia is essentially a very slow process from beginning to end. It has three stages: (1) a stage which may be described as "prehernial" or that which is passed through before any external appearance is discovered; it is peculiar to this form of hernia, it cannot exist in the congenital form, for reasons which will be obvious, and it does not exist in the strangulated variety, unless this supervenes as an acute attack in the course of a chronic one; (2) the stage of growth, which lasts from the time of appearance to the period when the efficient cause ceases to act; and (3) the stage of rest, when the efficient cause is removed, and only subordinate or accessory causes remain in operation. In acute hernia there is but one stage terminated by operation, unless reprehensible delay is permitted, when there are two—the stage of tension and the stage of gangrene. The results of treatment should be kept distinct. In acute hernia the state of the bowel is of the first importance; in chronic hernia the state of the abdominal wall. In acute hernia operation is a matter of immediate necessity; in chronic hernia it is one of convenience. In acute hernia the risk to life is great; in chronic hernia it is almost *nil*. In acute hernia the vitality is already, before surgical interference, greatly lowered, generally to such a point that the expenditure of a few minutes more or less over an operation may make all the difference between life and death to the patient. In chronic hernia the time expended on the operation is of very secondary importance, so that every detail as to technique may be carefully attended to. An operation, therefore, on acute hernia must be carried out under the very worst conditions for obtaining a permanent result; whilst in chronic hernia the efficient cause may first be removed, leaving only its results to be dealt with, the most favourable period as regards the patient's health and surrounding conditions may be chosen, and the operation may be carefully carried out with the perfect attention to detail which is necessary to secure permanency in the results, without the dread of vital exhaustion inseparable from operations on acute hernia; and this is the more important from the standpoint of permanent results, inasmuch as the foundation of a relapse is often laid during the first week after operation, whilst the parts are still in a plastic condition, when, should the efficient cause be still acting, bulging of the soft, uniting tissue is unavoidable. If the viscera protrude such a condition is due to: (1) the inordinate length of the mesentery;

[2] International Journal of the Medical Sciences, 1892, vol. liv., p. 356.
[3] New York Medical Journal, 1891, vol. liii., p. 630.
[4] Third edition, vol. ii., p. 763.
[5] Seventh edition, vol. xi., p. 618.
[6] Brit. Med. Jour., 1887, vol. iv., p. 1261.

(2) the abnormal attachment of the mesentery to the spine, or, as Mr. Lockwood calls it, "prolapse of the mesentery"[7] (these may be admitted, but they only refer to unusual cases, cases decidedly in the minority, and do not at all explain the great majority. Compare the statement in Mr. Lockwood's Hunterian Lectures—"the youngest subject in whom I have found this condition was thirty-one years of age, and the next youngest was forty-nine"—with the Truss Society's table, in which it is clearly shown that 75 44 per cent. of the whole number of herniæ occur before forty years of age, and 67 79 per cent. before thirty-five years of age; and also with reference to the first a further statement by the same authority:[8] "The length of the mesentery has been measured in twenty-one people with acquired sacs or herniæ, and whose ages ranged from thirty-one to eighty-five years. In none of them did the mesentery exceed the length which is ordinarily met with in people of their time of life. It is noteworthy that in as many as nine the mesentery should be below the average length of 7½ in." It is evident, therefore, that, making every allowance for the possibility of the occurrence of cases which admit of such explanations, the great majority of cases are untouched by them); (3) constitutional weakness of the walls and abnormal patency of the normal orifices; and (4) the effects of injuries, operations, sudden strains, as in lifting unusual weights, &c. Are these last two correct? If they are absolutely correct the chances of success in attempting the radical cure of reducible hernia are but small, since we have but poor weak tissues to work upon, and no surgeon can guarantee his patient against the common accidents of life. Practical surgeons will therefore turn their attention, as they have generally done in the past, to more profitable and satisfactory work. If they are not correct, may not our preconceived ideas on these points have influenced our practice, as well as our prognosis? The effects of previous operations on the abdominal wall may be allowed to stand over, inasmuch as such results may be avoided by better technique, and in any case the number of herniæ due to this cause is but small, and thus still the great bulk of reducible herniæ remains unexplained. Are reducible, or, as I prefer to call them, chronic, herniæ ever due to a sudden strain or over-exertion? Is it the fact that the reason why such strains produce hernia in one man and have no effect on another is that the first is of poor, flabby, unhealthy physique, while the latter possesses normal tissues? Is this true? Because, if it is not, much of the present practice which is, consciously or not, founded upon such preconceptions will be open to reconsideration and probably to modification. I believe that this conception is not the correct one, and for the following reasons. 1. A careful study of pathological specimens of reducible hernia reveals none of the changes usually to be found in lesions of other parts of the body due to sudden causes. It reveals, rather, very definite and well-marked differences between herniæ which have been produced suddenly—i.e., strangulated or acute herniæ—and those now under consideration. The appearances actually seen are such as are only compatible with the action of a comparatively gentle but persistent and prolonged continuous or frequently intermitting force. 2. A superficial inquiry into the history of a reducible hernia is as a rule glibly met by a declaration of some injury; but more careful cross-examination will usually succeed in eliciting the existence of some condition antecedent to the injury credited with the mischief, a condition potent for evil, but usually overlooked or ignored by both patient and examiner. 3. Many persons suffering from hernia are men who have enjoyed continuous good health, are descended from healthy parents, are physically stronger than their fellows, and many have shown, by the fact that they have reached a ripe old age in spite of this drawback, that they are of good constitution.

Pathological specimens.—The abdomen, we know, is a closed chamber, whose walls are divisible for the purpose under consideration into three—the peritoneal, the muscular, and the cutaneous. The cutaneous may for practical purposes be ignored, since when once the other two have yielded it offers no serious resistance, and in the operation for radical cure it is of no moment, its yielding, distensible character rendering it useless. The contents of the abdomen fit it accurately, so that a diminution in its capacity means internal pressure upon its walls in every direction. Of the two coats, muscular and peritoneal, both elastic, the muscular is far less dilatable than the peritoneal; the latter is complete, the former is not. There exist in the former, the outer coat, certain portions not so firmly constructed as the remainder, but yet, under ordinary circumstances, quite equal to give the necessary support. When, however, the abdomen contracts, the increased tension brought to bear upon that portion of the serous lining membrane which covers those weaker parts, causes it to bulge slightly. If the tension is now relaxed the natural elasticity of the wall restores the serous membrane to its original position. Should the tension be repeated quickly enough, so that the original effect has not quite disappeared, the elasticity is slightly diminished, and the return is not quite so perfect, but a slight pouching remains, while the peritoneum around the part thrust outwards is slightly dragged upon and displaced towards it. Should this process be repeated steadily and for a sufficient length of time the inner wall becomes slowly pushed outwards, drawing with it more and more of the surrounding peritoneum to assist in forming a small cone, open inwards, projecting in the line of least resistance.[9] This is the first stage, usually ignored by the patient, but occasionally, as the following cases go to show, causing much discomfort, which is often apparently unexplainable until the later appearance of the hernia throws light upon it. At this time there is no external tumour, the process is too gradual to cause vomiting or constipation or any of the symptoms which mark acute hernia, and until this time there has been nothing sudden or unusual to fix the attention of a patient. The cause acts so gently and so readily becomes habitual that nothing is thought of it, and its potency for evil in this direction is ignored. The following cases illustrate this point, and similar ones may be found in sufficient number if looked for.

CASE 1.—The case, which was that of a woman thirty-nine years of age, was communicated to me by my friend Dr. Cluff of Openshaw. She was suffering from a right inguinal hernia. When she was about twenty-seven years of age she nursed her mother, who was paralysed, for two years. During this time she felt aching pain in the inguinal region radiating over the abdomen. Nothing, however, could be detected by Dr. Cluff, who examined her several times, to account for it. One day, after the pain had lasted for several weeks and had become established, whilst lifting a bucket of water, a comparatively light weight, she felt something "give way" at the seat of the pain and discovered the rupture.

CASE 2.—This case was that of an athlete. The hernia was a right inguinal one. He had not taken part in running or jumping for twelve months when he came under observation, because about that time he suffered from influenza and had a distressing, hard, dry cough, which lasted for a month. He first noticed the hernia two months before he sought advice. He had no idea what caused it.

CASE 3.—This patient was a man seventy-four years of age. He had worked at a rubber factory for many years; he had often been "wet through," going and coming from work. During the winter he had suffered for many years from cough, it being so severe sometimes as to provoke vomiting; the cough was always hard, and little or no sputum was expectorated. He thought little about it, as many other men suffered from a cough, and it was always better in summer. While he was sitting smoking in his easy chair one night he coughed slightly and felt something give way. He found subsequently that he had a slight inguinal rupture. He had no idea what caused it.

In the report of the North of England Gynæcological Society for March, 1893, Dr. Rabagliati of Bradford reports two cases of commencing umbilical hernia, in which the symptoms were similar to those in Dr. Cluff's case, and in which a small opening was found on operation. That the inner wall is dislodged from the outer around the advancing cone and helps to form it is well shown in specimens in the Museum of the Royal College of Surgeons of England, Nos. 2609, 2612, and may indeed always be found more or less plainly in all specimens of chronic hernia. This slow dragging inwards of the parietal peritoneum is shown by the folds which have always been described as existing at the neck of the sac, but still more by what has not apparently attracted as much attention—viz., the fact that these folds radiate upwards and outwards over the interior of the abdominal wall for a very considerable distance. Specimens showing this are Nos. 2123, 2127, in St. Bartholomew's Hospital Museum,

[7] Brit. Med. Jour, 1889, vol. i., p. 1460.
[8] Ibid., p. 1400.

[9] See preparation in the Museum of the Royal College of Surgeons of England, No. 2660.

and Nos. 2609, 2612, in the Museum of the Royal College of Surgeons of England. Has the fact been appreciated at its full value that such folds only exist in an acquired reducible hernia, that they are never seen in a congenital or an acute hernia—that, indeed, if by nothing else, a chronic hernia can always be recognised by their presence? Such a condition surely implies displacement—slight separation of the inner from the outer wall for a considerable extent of surface; such as, were it produced at once, would almost inevitably be associated with small hæmorrhages and with slight or greater tearing of the thin membrane, if not by consequent inflammation; but none of these results are ever seen. Surely, therefore, the condition must be produced by a gentle force acting continuously, or at frequent intervals, over a prolonged space of time. This is the first stage. The slowly forming and advancing cone has opened out the internal ring and is beginning to press like a wedge upon the tissues of the canal. It may even have opened out the canal itself for some distance before it is discovered. If now a sudden and more forcible contraction of the abdominal cavity than usual should take place, such as would be produced by sudden lifting, jumping, &c., the wedge-like cone may be forced between the fibres, which separate with an appreciable sensation and the somewhat sudden recognition of the hernia from without. This, however, is only an incident in the course of such a hernia, upon which the efficient cause has already been at work for some time; is only possible, in fact, when the first stage is over, and is by no means always present. I have, indeed, been greatly struck by the numerous cases I have found of men with large herniæ who had no idea as to how they became possessed of their unwelcome encumbrances. This is the commencement of the second stage. The efficient cause being still in action, the peritoneal wedge slowly dilates the tissues it has passed through and opens up those in front of it, proceeding always in the line of least resistance, until it reaches such a point that its own weight begins to tell, and gravity reinforces the antecedent force; but whilst accessory, and in the later portion of this stage rather a powerful accessory to the enlargement of the sac, weight is certainly not the only factor, as a specimen, No. 2486[22] in Guy's Hospital Museum, conclusively proves. The sac here has enlarged in two directions—one downwards in the usual line, and one forwards and inwards towards the pubis. Always what I have called the efficient force remains the dominant factor. Other specimens which go to prove the foregoing are in St. Bartholomew's Hospital Museum, No. 2083A, and the Museum of the Royal College of Surgeons of England, No. 2612.

It is also to be remembered that during this, the second, stage, the peritoneum, at first a thin, fine membrane, becomes slowly hypertrophied, so that it is in some cases a quarter of an inch thick or more. This surely points to a constantly recurring irritation, not sufficient to cause inflammation, but enough to induce growth. Specimens showing this are Nos. 2081, 2082A, 2111, 2124, St. Bartholomew's Hospital Museum; No. 2607, Museum of the Royal College of Surgeons of England; and No. 2494[23] Guy's Hospital Museum. Should the efficient cause cease to act, a third stage is reached. The peritoneum now ceases to be protruded from the abdominal cavity and lies at rest in the passage it has formed. The folds in which the inner wall is disposed, lying quietly side by side, begin to unite, and over and between them a layer of lymph is thrown out, which forms a collar (St Bartholomew's Hospital Museum, Nos. 2123, 2124; Royal College of Surgeons Museum, No. 2603). They also become united to the tissues without. Should the cause again return this collar may be forced away from the point in the abdominal wall to which it was united, and the process starting afresh becomes the fundus of a secondary sac, formed in its turn by peritoneum dragged from the interior and stretched and lengthened in the process. The formation of the collar and these latter processes are well shown in one of Hunter's specimens in the museum of the Royal College of Surgeons, No. 2610. His description is worth repetition. "We dissected," he says, "a man who had rupture of a particular kind, a sort of double rupture on the same side and in the same passage and in the same sac. It appeared to me as if produced at two different times—that the man had a small inguinal rupture for some time, the contents epiploon, and that the mouth of the sac had contracted a good deal, so that no return of the epiploon could be brought about. Whilst in this state a second or new cause took place and, instead of dilating the old sac by pushing into it more epiploon, pushed down the old sac, and a new elongation of the peritoneum followed. This last was by far the largest." As I suggest, the cause, bronchitis or other, which was cured for a time—long enough for the requisite changes to take place in the neck of the sac—returned later in the patient's life and was the more persistent, partly, doubtless, because he was now, by so much, an older man. A similar case is mentioned by South.[10] As specimens showing still further the way in which, by the enlargement of a hernial sac, the internal peritoneum is dragged upon, I would instance No. 2111 in the St. Bartholomew's Hospital Museum, showing the sigmoid flexure displaced downwards until it rests immediately above the internal orifice of the sac, and No. 2111B, from the same collection, in which the cæcum has in a similar manner been drawn to the edge of the neck of the sac. Is it not possible that Mr. Lockwood's prolapse of the mesentery, and the elongation of that membrane occasionally seen, may be produced in a similar manner? Such an examination of specimens of chronic hernia proves, I think, that it is impossible that the real efficient cause of chronic hernia can be a sudden one—such as a strain, overlifting, jumping, and the like; and therefore that the usual history given is not the true one, but that more efficient and more easily overlooked causes must exist. My lists will, I think, show that these are usually to be found if carefully sought. They will also incidentally prove, I hope, my third proposition that the possession of a hernia is not a proof of poor constitution or relaxed muscular tissue. At first I hoped to have obtained information from various works and factories showing the proportionate numbers of men affected who were engaged in different employments, but I have been disappointed. The British working man, as we know him (at least in the North) is, with some honourable exceptions, extremely suspicious and distrustful. He sees or thinks he sees behind any attempt of this kind to obtain reliable statistics a mean attempt on the part of his master or the directors of the company employing him to eliminate the weaker members of the trade; and, partly, no doubt, owing to what I believe are the false ideas current respecting hernia, which are the reflection of our own teaching, he considers it a confession of weakness, or worse, to admit the possession of such an ailment. The lists from these sources are therefore useless, as the information they give is too fragmentary; but by the courtesy of the Prison Commissioners I have been able to examine the male prisoners in the gaols of Manchester, Preston, Liverpool and Knutsford. I have also been able to tabulate the male inmates of the Liverpool Workhouse. For the latter privilege I am indebted to Dr. Alexander and Dr. Haslett of Liverpool, who rendered me every assistance in their power. I am also indebted to Dr. Orchard of the Chorlton Workhouse for permission to examine patients in that institution. Examination of these cases brings out prominently certain very interesting facts, some of which may be pointed out.

1. A fair number (24 per cent.) gave the history of a strain or lifting a heavy weight without any hesitation at all, but on closer questioning it came out that in some cases the strain to which they attributed all their trouble had taken place a considerable time before the date on which they first discovered a swelling. Thus, in one case three or four weeks and in another eight or nine months elapsed between the accident blamed and the appearance of the hernia, whilst a third who found the hernia in 1872 went as far back as 1869 for its cause, and a fourth gave as the cause a fall from a scaffold twelve years before the first appearance of rupture.

2. A certain number could give no reason whatever, their minds being directed always to some sudden accident as the only possible cause for their condition, but on cross-examination one or the other of the causes I suggest as the efficient ones were usually found to be present. One case was peculiarly instructive. This was a man sixty-six years of age, who was operated upon eight years previously. The patient said that the surgeon who operated upon him was particularly anxious to elicit the cause of the hernia before operation, but the man could not trace it to anything. The rupture "came of itself," he said. The operation was done but there was a relapse in eighteen months. Could it be wondered at, when the man was evidently slowly dying from chronic bronchitis, from which he had suffered for more than forty years?

3. A certain number attributed the rupture at once to cough. "Sure, 'twas dint of heavy coughin'," said one Irishman

[10] South's Chelius, vol. ii., p. 4.

seventy-five years of age, but very few appeared to have any idea that their herniæ might be due to this.

4. Some accused the most unlikely things. One man in Strangeways Gaol believed it to be due to masturbation, another to the shock of having once drunk cold water, another to the pain of an injured hand &c.

5. Whilst occurring in men of poor physique and owning feeble parents, it was by no means limited to such. Some of those with large herniæ were strong, stalwart men, or had evidently been so at the time when the herniæ appeared, as the following three cases will show, whilst the ripe age to which they had attained and the family history elicited from them proved their right to rank among the best constitutions possible.

CASE 4.—A miner seventy-five years of age had had a right inguinal hernia for more than five years. He had been, besides pursuing his mining work, a mason, a navvy, and a brickmaker. His father (a farmer) died at forty years of age from the effects of a fall off his horse; he had always been a strong man. His mother died when between fifty and sixty years of age. She had never been laid up for a single day in her life.

CASE 5.—A labourer seventy-four years of age had a right inguinal hernia of five years' and a left femoral hernia of eighteen months' standing; he had suffered from bronchitic asthma for more than six years. His father died at seventy years of age. His mother was more than eighty years of age.

CASE 6.—This patient was seventy-two years of age, with a double inguinal hernia of twenty-five years' standing; he contracted gonorrhœa when twenty-five years of age, with consequent stricture, besides numerous attacks of hæmorrhoids. He had done labourer's work for ten hours a day (from 6 A.M. to 6 P.M.) easily for many years. His father died at eighty-four years of age from natural decay. His mother died at sixty years of age from fever.

6. A man 6 ft. 2 in. in height, well set up and an athlete, came to show a commencing right inguinal hernia, which he easily controlled by wearing a truss. After discussing the question of its causation [for at first, with the usual tendency to hunt for an accident, overstrain or unguarded act as a cause, he could give no reason why he, of all others, should be troubled in this way], he confessed that as a boy he had disliked going to the primitive construction which did duty for him in those days, and had for that reason often gone as long as a week without a defæcation; that as he grew older he had suffered in consequence from intractable constipation with the usual straining at each effort, and that he had noticed, whilst straining, slight cracking sensations in the inguinal region; that these with the uneasy feeling they produced could always be arrested by lifting the right thigh so as to press it against the abdomen, and that now looking back he could easily understand that his old habits of procrastination of the fæcal act stood in the direct line of causation to his present hernia.

7. Whenever two or more herniæ occurred in one man, whilst an explanation was generally glibly forthcoming for the first, any inquiry into the history of the later ones was met by ignorance of any further cause. It appeared only natural that if the abdomen gave way at one point it should continue to do so at others.

8. Certain occupations which act in a similar way appear also to produce chronic hernia. Thus, one patient, a hawker, attributed his hernia, and, as I think, rightly, to the constant shouting required in his calling. Another case was a very interesting one. No reason whatever could be found in this man, who was at sixty-eight years of age a well-built, sturdy-looking fellow, with a soldierly bearing and a perfectly healthy history, until I elicited the fact that he had been in several regimental bands, where he had played on the bombardon, bassoon, tenor trombone, and the cornet.

In the latest book on this subject by Macready[11] lists are given of the occupations of the sufferers from hernia, and he remarks, contrary to the opinion of Kingdon,[12] "that the proportion of ruptured persons in a trade fairly corresponds with the severity of the toil," but he notices that the gardener, the hawker, and the baker are very high on the list. "The gardener," he says, "takes a high place, because, perhaps, his position at the spade relaxes the structures of the groin at the moment of his most considerable effort. It has been noticed that the foresters in the Hartz Mountains suffered grievously from ruptures, and Stromeyer supposed that the stooping position, which they were obliged to adopt in cutting and binding wood, materially contributed to produce ruptures among them." As to this, one would naturally ask what particular strain is there in cutting and binding wood, and if there were, would not the very relaxation of the part be the best possible preventive of any dangerous result. He goes on to say: "It is difficult to explain why the hawker is so high upon the list, unless it is that he is not only ill-fed, but he is compelled to strain when shouting to call attention to his wares. The baker, also, is more frequently ruptured than might be anticipated. He has often to lift heavy weights, and is especially subject to the ill-effects of an atmosphere impure with ígns, moisture and dust, whilst he is one who makes the night joint labourer with the day." Naturally, if one is imbued with the idea that undue strain combined with constitutional debility is the true cause of hernia, it becomes necessary to attempt to explain the relatively high position of bakers, gardeners, foresters, and hawkers, but if it be conceded that the efficient cause is what I suggest it becomes immediately most natural. Foresters, gardeners, and hawkers are all exposed to extremes of weather. Bronchitis, pneumonia, and asthma will be readily induced in them, whilst bakers live in a peculiarly irritating atmosphere, besides being at one time exposed to a high temperature and at another often to a very low one. If the list is examined with the former notion, it is still more difficult to explain why the gardener should rank higher than the blacksmith, or the cellarman than the mason; but viewed in the latter way each trade falls naturally into its position, from the gasworks service at the top to the clerk and tobacconist at the bottom.

In discussing the question of the constitution of herniated persons we are handicapped by the fact that there exists no definite standard to which we can appeal as proving that a man has a normal muscular condition or that his constitution cannot be considered to be debilitated; but some assistance may be obtained from certain statistics. The tables furnished by the Truss Society when compared with the Registrar-General's report show that hernia apparently does not shorten life, inasmuch as, whilst 75·44 per cent. occur before forty years of age and 67·79 per cent. before thirty-five years of age, deaths from hernia occur in the proportion of 93·15 per cent. after thirty-five years of age, and at seventy-five years of age there are as many as at forty-five years of age, and at eighty-five years of age, and upwards, there are nearly as many as at twenty-five years of age. Here, again, the conclusions are falsified by the universal custom of grouping all herniæ together as varieties of the same malady. Were chronic herniæ quoted separately the contrast would be still more striking. I cannot help also emphasising the fact once more, which is clearly shown by the above figures, that so large a proportion of men with herniæ live to a good old age, outliving their fellows, although burdened with this disability, goes to prove that taken collectively they are rather men of better material than ordinary. Further to accentuate this, I have contrasted the deaths from hernia and those from scrofula. Of course, scrofula does not coincide with the relaxed muscular condition ascribed to herniated patients, but it is the nearest condition tabulated in the Registrar-General's returns, and I instance it simply as exemplifying the fact that persons of a poor type of physique show a typical death-rate in absolute contrast to that of hernia. It will be seen that, putting all herniæ on one side occurring before five years of age as almost certainly congenital, there is a progressive rise through small figures up to sixty-five years of age, whilst in scrofula there is an almost unbroken decrease from the commencement onwards. Compare, on the other hand, the deaths from hernia with those from bronchitis, emphysema, and asthma, and the types of each will be seen to be almost identical.

The next table gives confirmatory evidence. Men entering the army may be considered to be picked men, as any who show the presence of deformity or debility either at the time of enlistment or within three months after are rejected, and I understand that the standard required for cavalry men is distinctly higher than that for infantry. Yet by the reports of the Surgeon-General for the years 1868–71 inclusive—the latest I can obtain giving this particular information—cavalry and artillery show larger percentages of sufferers from hernia than infantry. If the Household troops are omitted, as I think they fairly may be, the percentage is still higher, being for cavalry and artillery, 3·05; for infantry, 1·78. What is the explanation? I suggest that it is due to

[11] Macready on Ruptures, p. 51.

[12] Holmes' System of Surgery, third edition, vol. ii., p. 749.

the multitudinous concussions to which the abdominal cavities of artillerymen and cavalrymen are subjected—the latter by the English military fashion of riding and the former by the bumping over uneven ground with their springless gun-carriages.

Without doubt in any attempt at radical cure of chronic hernia the choice of the operation best suited to the particular case is a matter of the utmost importance; but even the best planned operative measure may end in failure or relapse, which is much the same thing, if the cause which originally produced the rupture is still in action. To be certain of its previous removal it is obviously necessary above everything else that there should be no doubt as to its identity. To assist in determining this is the aim of this paper, and the conclusions which appear to me justifiable are: (1) that chronic and acute herniæ are absolutely different things, agreeing only in the fact that they are both protrusions of viscera through their normal environments; (2) that they differ in etiology, pathology, and course; (3) that, especially from the point of view of radical cure, it is important to distinguish between them; (4) that in discussing the feasibility of operations for radical cure, and especially the permanency of their results, the etiology of chronic hernia is of immense importance, since an operation for the cure of the results of a cause is almost certain to be useless whilst the cause remains in operation, and if the cause can be found the patient may be warned to avoid it after the operation has been performed, in order that permanency may never can be unless acute and chronic herniæ are absolutely separated and the true effective causes of them are duly appreciated, these causes being previously carefully eliminated.

St. Ann's-square, Manchester.

TABLE I.—COMPARISON BETWEEN DATES OF DEATHS FROM HERNIA AND FROM SCROFULA.

Registrar-General's Report, 1891.

—	Under 1 year	1 to 5	5 to	10 to	15 to	20 to	25 to	35 to	45 to	55 to	65 to	75 to	85
Hernia	73	11	1	2	9	14	41	109	187	273	342	164	30
Scrofula	1516	1525	542	429	397	337	407	311	212	146	67	22	—

	Before thirty-five years of age.	After thirty-five years of age.
Hernia	5·53 per cent.	94·46 per cent.
Scrofula	73·58 ,,	26·41 ,,

TABLE II.—COMPARISON BETWEEN DATES OF DEATHS FROM HERNIA, AND FROM BRONCHITIS, EMPHYSEMA, AND ASTHMA.

Registrar-General's Report, 1891.

—	Under 1 year.	1 to 5	5 to	10 to	15 to	20 to	25 to	35 to	45 to	55 to	65 to	75 to	85
Hernia	73	11	1	2	9	14	41	109	187	273	342	164	30
Emphysema and Asthma	10	16	14	6	12	22	102	257	491	863	913	333	25
Bronchitis	19,594	11,331	572	117	147	179	765	1985	4918	9872	14,124	9768	1908

	Before thirty-five years of age.	After thirty-five years of age.
Hernia	5·53 per cent.	94·46 per cent.
Emphysema and asthma	5·15 ,,	94·85 ,,
Bronchitis	4·00 ,,	96·00 ,,

TABLE III.—SHOWING NUMBERS SUFFERING FROM HERNIA IN THE ARMY DURING THE FOUR YEARS 1868 to 1871 IN EACH ARM OF THE SERVICE, WITH ACTUAL STRENGTHS AND PERCENTAGE.

—	1868.			1869.			1870.			1871.			Total. per-centage.
	Total strength.	No.	Percentage.	Total strength.	No.	Percentage.	Total strength.	No.	Percentage.	Total strength.	No.	Percentage.	
Household Cavalry	1,212	—	0·3	1,216	1	0·8	1,208	0	0·0	1,204	—	0·0	2·5
Cavalry	8,231	22	2·6	7,923	17	2·1	7,965	22	2·7	10,462	17	1·6	
Artillery	9,565	25	2·6	7,912	14	1·7	9,674	26	2·6	12,123	52	4·2	
Foot Guards	5,678	3	—	5,642	2	—	5,674	4	—	6,222	5	0·8	1·8
Infantry	25,208	41	1·6	31,541	43	1·3	33,823	72	2·1	47,420	91	1·9	
Depôt Battalions	14,186	41	2·8	10,686	31	2·9	8,362	24	2·8	7,431	20	2·6	

WORKHOUSE TRAINING FOR NURSES.—Dr. Robinson, of the Infirmary, Bancroft-road, N.E., informs us that the time of probation for their nurses is two years, not one. We are glad to make this correction.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.—The annual dinner of this society was presided over by Dr. Walter Hunter at the Flying Horse Hotel on Thursday, Feb. 1st. In proposing the toast of the evening Dr. A. W. Hare said that the influence of medical societies could not be too highly estimated, in drawing medical men into closer relationship with one another, in stimulating thought, and in promoting the advancement of knowledge, both along practical and scientific lines.

SOME PRACTICAL POINTS CONCERNING THE DIAGNOSIS OF CARDIAC MURMURS.

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THERE are many considerations of practical interest in connexion with the examination of the heart which deserve attention if fallacies are to be avoided and reliable diagnoses obtained. We desire here to notice two such matters—(1) the effect of exercising pressure with the stethoscope, and (2) the influence of slight change in posture. We have not been able to find any reference to either of these points in the various text-books on the subject.

1. THE MODIFICATION OF MURMURS BY PRESSURE.

If, when listening to a murmur, pressure be made with the stethoscope the character of the murmur is altered. This modification is twofold—the murmur is weakened and its pitch is raised. With a few exceptions, to which reference will be made presently, we have found this effect of pressure to be universal. It may be brought about, however, as might be expected, more readily in some cases than in others: thus in children with elastic and resilient chest walls slight pressure is sufficient to cause a well-marked modification; to produce the same degree of change in adults with more rigid chest walls a greater amount of pressure must be employed; while the effect is least marked in old people whose rib cartilages have become ossified and whose chest walls are extremely rigid and unyielding. The modification is more readily obtained in fat than in thin people. The slightest pressure is often sufficient to considerably modify the murmur; even the weight of the stethoscope may cause a difference, so that in the pursuance of these investigations we have found it necessary to use a binaural in place of the wooden stethoscope, with which great pressure may be exercised unwittingly; with the binaural stethoscope the pressure employed is under control and can be graduated. It is not necessary that the pressure should be applied over the point of greatest intensity of the murmur or over the point of production. Wherever the murmur can be heard the effect of pressure is the same; indeed, it can often be more readily produced at a distance from the point of production than near to it. A case may be quoted of mitral regurgitation in a boy five years of age in whom a long, loud, systolic murmur was audible all over the chest, back, and front, the spot of maximum intensity being at the apex-beat. The murmur was heard very distinctly at the angle of the left scapula, but on exerting the slightest pressure at this point it became exceedingly faint; a moderate amount of pressure sufficed to obliterate it. In front the effect of pressure was evident more in modification of pitch than of intensity, gentle pressure causing a well-marked rise of pitch. On increasing the pressure the murmur became rapidly weaker at the same time as the pitch was raised.

The same points may be illustrated by experiment. If water at high pressure be allowed to pass through india-rubber tubing, in the course of which a small constriction has been made by string or otherwise, a loud, continuous murmur is generated. If the tubing be laid on a piece of board the murmur is conducted along the board and may be heard on applying a stethoscope to the board at a distance from the tubing; if a thin piece of cotton wool be now placed between the stethoscope and the board, and the former be gradually pressed down firmly on to the latter, the murmur becomes weak and its pitch is raised—the same result as is obtained when auscultating a cardiac murmur. It will be noticed that in this experiment the production of the murmur is in no way interfered with, and the conclusion is inevitable that the modification is one of conduction, not of production; this throws some light on the point referred to above—namely, that in auscultation of the chest, no matter where the stethoscope be applied, provided only a murmur be audible, the effect of pressure is the same.

It is laid down in text-books, and generally accepted, that the intensity of a pulmonary hæmic murmur is increased by pressure. This is undoubtedly true in some instances, and in many children a murmur can be actually produced where none was audible before by properly applied pressure; we find, however, that in by far the larger number of hæmic murmurs pressure, as would be expected, has the same effect as in other murmurs—namely, the intensity of the murmur is not increased, but diminished, and the pitch of the murmur is raised. Soft hæmic murmurs are readily obliterated before any modification of pitch can be detected; with louder murmurs the earliest effect of pressure is usually to raise the pitch before any notable weakening occurs, a greater degree of pressure being required to weaken the murmur than to modify the pitch. We are inclined to think that this variation in the behaviour of hæmic murmurs to pressure depends on whether the actual production of the murmur is modified by the pressure or not; in those cases where the pulmonary artery can be actually pressed upon and dimpled doubtless an existing murmur will become more loud or a murmur will be produced where there was none before. In order to produce a murmur in a child it is necessary to use a stethoscope with a small chest-piece which can be fitted between the rib cartilages in the second left interspace, and firm pressure inwards and backwards must be exercised; it is clear that a murmur thus produced is the result of an actual flattening of the pulmonary artery by the pressure employed. In the majority of cases of hæmic murmur, however, where pressure weakens the murmur, the production of the murmur cannot anyhow be supposed to be modified, since the change in character may be obtained equally well, or even more readily, at a distance from the point of production than immediately over this point; the modification, therefore, has to do solely with conduction.

Some comment is necessary on the subject of "pitch" in connexion with murmurs. The word is apt to be misleading, inasmuch as, strictly speaking, murmurs cannot be said to possess definite pitch except in rare cases of truly musical murmurs. A murmur should properly be regarded as an aggregation of noises affording a general impression of pitch so far that one murmur can be said to be of higher or lower pitch than another; but the pitch cannot be defined. On exercising pressure while listening to a murmur the impression afforded is that the lower-pitched noises which enter into the composition of the murmur are weakened or abolished, leaving the higher-pitched noises prominent. This produces the broad effect of rise in pitch. The high-pitched elements of a murmur bear no such relation to the low-pitched elements as harmonics to the ground note of a musical sound; a murmur, being a combination of noises, possesses no harmonics. In the uncommon cases of true musical murmur, to which definite pitch can be assigned, the pitch remains constant whatever the pressure be. Similarly if a vibrating tuning-fork be placed at one end of a board, and the other end be auscultated (a thin piece of cotton wool having been placed between the chest-piece of the stethoscope and the board), the note heard remains constant, its pitch being unaltered whether firm or light pressure be exercised with the stethoscope.

In differentiating between the various murmurs which may be produced at the cardiac orifices reliance is usually placed on these points: (1) the time of the murmur; (2) the position of maximum intensity; (3) the degree and direction of conduction and convection (convection in the case of murmurs nearly always playing the more important part); and (4) other qualities, which may be included generally under pitch and timbre. The consideration of pitch, harshness, blowing character, and such qualities is held to be of less importance than the determination of the point of maximum intensity and the degree and direction of convection or conduction, and it is doubtless right to give to these latter the first place; still, supposing a murmur to be heard at the base of the heart and a murmur also at the apex, and supposing the one to be a low-pitched, rough murmur and the other a high-pitched, blowing one, it would be most tempting to conclude that with characters so opposite the two murmurs must be distinct; and yet it will be found that the first murmur can be brought to assume all the characters of the second by the application of pressure—it will become soft, high-pitched, and blowing. We have found it frequently to be the case that without any variation in the degree of pressure employed the pitch of a murmur is different at different points of the chest; the alteration is usually in the direction of a rise in pitch as the stethoscope is carried away from the point of production of the murmur—

the further from the point of production the higher the pitch. So the conclusion cannot justly be made that two murmurs are distinct because they contrast with one another in point of pitch and timbre. Of much greater value is the consideration of the intensity of the murmur at different points; if the murmur is heard clearly at the apex and also clearly at the base, and if there is an intermediate point between apex and base at which it is not heard at all, or at any rate less loudly than at either apex or base, then it may be safely concluded that one has to deal with two separate murmurs and not with a single murmur conducted from one point to another. Here also there is a source of fallacy; if, while listening to the intermediate point between base and apex, pressure be applied, the murmur will be weakened, and very slight pressure will suffice to bring about this result, as we have shown above; so little, that the observer may not be cognisant of having altered the pressure, especially if he be using a wooden stethoscope. Thus a single murmur, generated, say, at the pulmonary orifice and conducted from base to apex, may readily assume the character of and be mistaken for a double murmur, the one basic, the other apical. To obviate such fallacies we would suggest that the use of the wooden stethoscope be supplemented—not replaced—by the binaural, a simple precaution by which the misapplication of pressure can be easily avoided.

It remains to be noticed that these effects of pressure are not observed solely in connexion with murmurs; the second sound of the heart becomes higher-pitched and weaker when pressure is employed. In many cases we have been able to weaken it almost to obliteration; in a few it has become actually obliterated. The breath sounds also are considerably modified; not only do they become raised in pitch and weakened, but their vesicular character is lost. To obtain this result considerable pressure must be employed; less pressure is necessary in children than in adults.

2. THE EFFECT ON MURMURS OF SLIGHT CHANGE IN POSTURE.

We have been much impressed with the importance of posture in comparing the loudness of a cardiac murmur at different points. A very slight inclination to one side or the other may cause the point of maximum intensity of a murmur to shift, this occurring more readily on leaning towards the left than towards the right side, and being much more noticeable in basic than in apical murmurs. We have observed this effect of posture in the murmurs of aortic regurgitation, of aortic stenosis, and in pulmonary hæmic murmurs. As an example, a case may be given of a man with aortic disease in whom a well-marked double basic murmur was heard on auscultation of the heart. When the man was lying on his back the diastolic murmur was heard loudest close to the sternum in the second left interspace, the systolic murmur being most plainly audible in the second right interspace close to the sternum. After turning over towards the left through an angle of 45 degrees only the points of maximum intensity of both the murmurs were found to have shifted three-quarters of an inch to the left, the diastolic murmur being heard best still in the second left interspace, but well away from the sternum, while the systolic murmur was loudest to the left of the sternum in the second interspace; the apex beat had shifted nearly an inch to the left of its former position. After turning from the back towards the right through the same angle it was found that the point of maximum intensity of the diastolic murmur had come to lie on the right of the sternum; the intensity of the systolic murmur to the right of the sternum was notably increased, but its position had hardly altered; the apex-beat had shifted to the right. It may be remarked in passing that we find the point of maximum intensity of the murmur of aortic regurgitation to lie much more commonly to the left than to the right of the sternum; this is at variance with the statements made in most text-books, in which the murmur is described as being usually most plainly heard to the right of the sternum. Another case may be quoted of hæmic murmur in a woman suffering from chlorosis. With the patient lying on her back the murmur was heard loudest in the second left interspace about one inch from the sternal edge; the result of turning towards the left was that the point of maximum intensity shifted half an inch further out to the left. On turning towards the right the murmur became, on the whole, weaker than before, but the loudest point was close up to the left sternal edge in the second interspace, and it became audible also in the second right interspace at a spot where it was not to be heard when the patient was lying on her back. Other similar instances could be given, but the above cases are sufficent to illustrate the modification produced by leaning to the one side or the other and to indicate the importance of posture in making observations as to the relative loudness of a murmur on the two sides. That these phenomena are due to an actual change in the position of the heart is indicated by the apex-beat, which may be observed to move half an inch or more out of its previous position, much more readily to the left than to the right. In many cases, after the patient has turned towards the left, we have noticed some delay in the shifting of the heart, the point of maximum intensity of the murmur remaining for one or two minutes in the same position as when the patient was lying on his back. There has been in some cases a similar delay in the return of the heart after the patient has turned from the left so as to lie again on his back; the heart has always, however, in the end reverted to its original position without any further change of posture. The intensity of the second sound is modified by posture in a similar manner. The result of leaning to the left may be that the second sound, previously louder on the right side than on the left, becomes louder on the left than on the right; or the point of maximum intensity on the left side from the beginning, may shift half an inch or more further to the left; or a second sound which was previously weak on both sides may become loud on the left and almost inaudible on the right. The slightest inclination to the left may be sufficient to greatly intensify the second sound as heard on this side.

THE SIGNIFICANCE OF THE "FUNNEL-SHAPED" AND "BUTTON-HOLE" OPENINGS IN STENOSIS OF THE CARDIAC VALVES.

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WHEN the mitral and aortic openings or their counterparts in the right heart are constricted by disease they tend to conform to one of two types—viz., (1) the funnel, and (2) the slit (known in the case of the auriculo-ventricular orifices as the "button-hole" opening). 1. The funnel-shaped opening at the mitral orifice (for convenience I shall confine my remarks to the left heart) is often formed by the simple union of the two mitral cusps at their contiguous edges, the apex of the cone thus formed projecting into the ventricle. In like manner the aortic valves may become blended so as to form a funnel pointing towards the aorta. The walls of the mitral funnel are sometimes so smooth and regular as to suggest congenital malformation, though such cases are now pretty generally recognised to be always the result of endocarditis. The funnel, or cone, is not always a perfect geometric figure—i.e., one consisting of a series of gradually diminishing circles: the smaller orifice—the orifice of egress—may vary between a perfect circle and a long, narrow slit, in which latter case the funnel will tend to be flattened. Nevertheless, there is always an approach to a perfect geometric cone. 2. The "button-hole" orifice takes the shape of a slit or chink. This, as has been just seen, may be approached by a gradually narrowing passage, forming a flattened funnel, or it may occur as a chink in the centre of a more or less flat diaphragm stretching across the stenosed orifice. An explanation of this tendency to one of two definite types has now to be found. I shall seek to show that it depends very largely upon certain hydraulic laws and that the "funnel-shaped" and "button-hole" orifices permit the largest available amount of fluid to pass through them. The flow of fluids through orifices has been carefully studied by physicists, notably by engineers, and it has been found that when fluid is discharged through an orifice the sectional area of the jet is always less than the area of the orifice. The degree to which the cross section of the jet is diminished is technically called the vena constricta, and the relation which its area bears to that of the orifice, the coefficient of discharge. When a fluid is allowed to escape from a vessel through a circular orifice in its side with sharp edges—i.e., through a mere partition—the diameter of the jet is about 80 per cent. less than that of the orifice, and the relation of the cross section of the jet to the orifice—i.e., the coefficient of

discharge—will be about 0·62. When, however, the opening is approached by a funnel-shaped passage the coefficient is greatly increased. The exact increase depends upon the inclination of the walls of the funnel: thus, when the inclination is from 48° to 50°, the coefficient is 0·847; when from 13° to 17° it is 0·993. What the coefficient is in funnel-shaped passages with chink-like orifices of exit has not, so far as I know, been ascertained, but I believe it will be found to differ very little from that of a regular cone with a circular orifice of exit; and if such is the case it must be assumed that the funnel-shaped openings met with in stenosis of the mitral and aortic valves tend to facilitate the flow of blood through them.

Next as to the flow of fluid through chinks in flat diaphragms. It has been seen that when the orifice is perfectly circular in such a partition, the coefficient is small. One would accordingly not expect to find a cardiac orifice occluded by a membranous partition perforated in its centre by a circular orifice. Such an orifice I have neither seen nor heard of. When a membranous diaphragm stretches across a cardiac orifice the opening in it always, so far as I know, takes the form of a slit, and in searching for the coefficient of such orifices I was accordingly not surprised to find that I had anticipated rightly—that it is "much greater for long, narrow orifices than for circular."[1]

From the above considerations it is manifest that the funnel-shaped and slit-like orifices tend to minimise the evils of stenosis. In them there is seen an endeavour, as it were, to make the best of a bad state of affairs. Having explained the advantage attaching to them, the mode of their production may be examined. I believe the proposition that "a fluid flowing more or less continuously through an aperture in a plastic membrane tends to mould that aperture and that membrane so as to give the largest available coefficient of discharge" is deducible from physical laws. Apart from this, however, it will be observed that the agglutination of the adjacent edges of the mitral valves tends to produce a funnel the apex of which projects in the direction of the current, and the same remarks apply to the aortic valves. Hence from the very beginning of the stenosis there is often a tendency to the funnel-shaped opening; but this tendency of the agglutinated valves to form a funnel is by no means an essential factor in its production. As the mutilated valves contract and close up the valvular orifice they tend to form a membranous diaphragm across it. Now, a plastic membrane with a small opening in its centre naturally tends to project in the form of a funnel if one side is subjected to fluid pressure. Anyone may confirm this *a priori* deduction by tightly stretching a thin piece of gutta-percha over the nozzle of a tap, piercing an orifice in its centre and then turning on the water. In a similar way the blood flowing against the stenosed mitral and aortic valves tends to protrude them cone-wise in the direction of the current. Why, then, is not the cone always observed in stenosis? In order to explain this it must be borne in mind that the form of the stenosed orifice depends upon the action and reaction of two sets of forces. On the one hand, there are the vital activities of the tissue surrounding the diseased orifice tending to mould it into a certain shape; and, on the other hand, the pressure of the blood passing through the constricted orifice tending to shape it in such wise as to secure the largest available discharge. When the former forces are so powerful as to lead to the formation of a more or less flat partition stretching across the original orifice, as in extreme mutilation of the mitral valves going on to excessive cicatricial constriction, or abundant atheromatous deposit ("ossification") in the aortic cusps, then the orifice takes the form of a slit or chink, which allows more fluid to pass through than a circular opening of the same area.

It will thus be seen that the laws regulating the flow of fluid through orifices have important bearings upon the pathology of the circulation. I have here only touched upon a few of these bearings in order that the issues may be kept clear.

Devonshire-street, Portland-place, W.

[1] See Mr. Hamilton Smith's work on the Flow of Water through Pipes, Orifices, &c., p. 43.

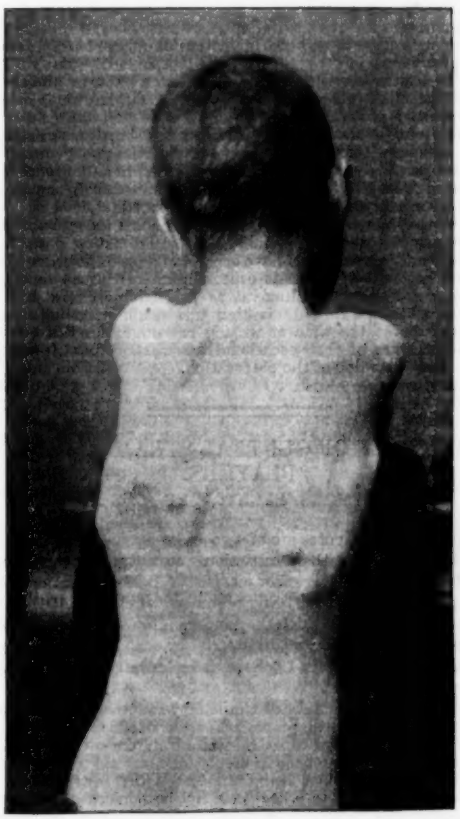
THE PASTEUR INSTITUTE IN BENGAL.—A Reuter's telegram from Calcutta states that the Bengal branch of the Pasteur Institute was successfully inaugurated on Jan. 30th in the presence of a large company. After the ceremony subscriptions to a considerable amount were promised.

A CASE OF MYOSITIS OSSIFICANS.

BY WELDON CARTER, M.D. LOND., &c.

MYOSITIS OSSIFICANS being a rare disease, I am induced to bring before the readers of THE LANCET the following short notes of an example which I have been fortunate enough to come across, and I trust that it may prove to be an interesting addition to the report of the disease by Mr. C. Stonham which was published in THE LANCET of Dec. 31st, 1892.

A boy nine years of age first came under my observation in April, 1892, being brought to the Wigan Infirmary for certain "lumps in his back" which had been first noticed four or five years previously and had gradually increased in size and number during that period. There had never been



any complaint of pain or tenderness. The patient's family history was good and he had always enjoyed good health. The condition of the boy when seen by me on April 21st, 1892, was as follows. He was quite healthy in general appearance, though he stood somewhat stiffly with his head slightly bent forward, and was unable to fully extend the dorsal and lumbar portions of his spine; the cervical portion, however, presented very little alteration in mobility from the normal. On stripping the patient the lumbar portion of the erector spinæ on either side was found to be converted into a mass of bone which projected backwards and laterally more than in the case of healthy muscles; the mass measured four and a half inches transversely—i.e., two inches to the right and two and a half inches to the left of the middle line of the body. The sacral spines were rather more prominent than natural. In the posterior axillary folds there were observed irregular movable masses of considerable size which, though more prominent on the left side, occupied a greater

length of the axillary border of the right latissimus dorsi muscle. Other movable masses were found in the teres major muscles, along the vertebral border of the right scapula, near the angle of the left scapula, and in the left trapezius muscle near its occipital attachment. The great toes were in the position of hallux valgus, the phalanges of the first, fourth, and fifth toes in both feet were very short, and there was slight webbing between the second and third toes of each foot. The hands were normal. On examining the boy on April 7th, 1893, I found that there was no increase in the stiffness of the back, but the bony masses previously noted had undergone considerable increase in size, this being especially the case with those in the latissimi dorsi. There were several fresh bosses of bony deposit to the left of the spine, commencing at about the level of the eighth dorsal vertebra and extending outwards and slightly upwards in the direction of the left scapula. Several other new nodules were discovered in different parts of the back. So far as could be made out, there was no evidence of the adductor muscles of the thighs being affected. The masses of bone were mostly of an irregularly rounded shape, but a few were somewhat spiculated. There was no indication of any old or present suppuration.

The illustration, which was taken from a photograph dated April 8th, 1893, gives a good general idea of the extent and distribution of the disease.

Remarks.—This case supports the conclusions arrived at by Mr. Stonham that myositis ossificans occurs more frequently in the male sex, in youth, and without hereditary transmission; also that it commences in the muscles of the back and runs a progressive course. It is peculiar, however, in the entire absence of any history of local pains, nor is there any history of such etiological factors as cold, damp, injury, or disease, which have occasionally been met with in this affection. The case is especially interesting as showing its association with hallux valgus and microdactyle, and I would add that this observation was made quite independently, for at the time of writing my original notes I was quite unaware of their occasional association, which greatly enhances the value of the observation.

Winckley-square, Preston.

TWO CASES OF GLUTEAL STRAIN IN GOLF-PLAYERS.

BY A. SYMONS ECCLES, M.B., C.M. ABERD.

THE following notes are of two cases apparently identical both in regard to their causation and nature, which came under my care in the earlier months of 1893. Both patients described themselves as being beginners at golf and attributed the condition, from which they suffered, to the unaccustomed attitude and unskilful mode adopted by each of them in performing the act which, I believe, is technically known to golf players as "driving."

The first case was that of a man fifty-two years of age, who came into my consulting-room in February, 1893, presenting the usual appearance of a patient suffering from severe sciatica of the right limb—his mode of progression and the posture adopted in standing, being at first sight identical with those most commonly acquired by persons afflicted with long-standing painful affections of the sciatic nerve. Supporting himself on two sticks with the trunk thrown over to the left side, the right knee was semiflexed and the heel raised, the toes only being in contact with the ground. He complained of severe pain over the greater part of the right buttock, which was greatly increased by any movement of the right limb, especially aggravated when the weight of the trunk was thrown upon it, as when the left limb was raised in the act of walking. While standing he was careful to throw the whole weight upon the unaffected limb, and could not be persuaded to relinquish the support afforded by the sticks or to attempt locomotion without their aid. On examination I failed to detect any tenderness over the sciatic notch or anywhere in the course of the nerve, nor was there any tenderness about the buttock, save on its upper and outer aspect. Between the anterior superior spine of the ilium and the upper margin of the great trochanter, there were distinct tenderness on pressure and apparent swelling. There was also pain of a less severe character in the right lumbar region, which was increased when any attempt was made, whether passive or active, to induce the resumption of the erect posture. No tenderness, however, was elicited on pressure over the lumbar region. On measurement from the point of the second sacral vertebra round the respective buttocks to the median line in front, the swelling on the right side, which I had been at first inclined to regard as only apparent and merely due to posture, proved to be real, as on that side the measurement between the sacral spine and the middle line in front was 53 cm., the corresponding measurement round the left buttock being only 48 cm. The measurements were made as the patient stood supporting his weight on the left limb, the right glutei being completely relaxed, thus showing that the increased measurement was not due to the contraction of the anterior fibres of the gluteus maximus. On inquiry as to the cause and duration of the pain, the patient informed me that he had, within the previous ten days, commenced to learn the practice of golf, and though, during the first few days, going round the links once daily, he had experienced some general stiffness and soreness at night and in the morning on rising, no localised or severe pain had been felt until two days previously, when, having devoted the greater part of the afternoon to the practice of a stroke involving an attitude and a rapid muscular effort which I am at a loss to describe, but which are no doubt familiar to those who play golf, and desiring to pose in driving a "tee'd ball" in the most finished style, he felt a violent pain in the upper and outer part of the buttock and over the right lumbar region, so that on leaving the ground he was unable to walk without much suffering and could not maintain the erect posture. At night the pain involved sleeplessness, and no sort of rest could be obtained save while lying on the left side with the back and right thigh propped with pillows. Hot fomentations and rubbing with embrocations had failed to give relief.

The second case occurred in the person of a member of our own profession, who consulted my friend Mr. Keetley, to whom I am indebted for the opportunity of seeing this second example of the same accident, as he was sent to me for massage of the affected part. I first saw the patient early in April, 1893, when he told me that, as a beginner, on March 31st he was playing golf and went twice round the links, feeling very stiff at the end of the day, especially about the right hip, but not until the evening did he feel anything seriously amiss, when he began to suffer somewhat severe pain about the upper part of the right buttock and lumbar region. As time went on, he felt no better and was unable to support the weight of the body on the right limb, the trunk being tilted to the left side and the left shoulder thrown forward, the patient presenting somewhat the appearance of lateral spinal curvature, due to faulty posture. The position adopted by this patient when standing and the mode of performing the act of walking were identical with those previously described in the first case. On examination I failed to detect any tenderness on pressure; the whole buttock appeared to be slightly swollen, but the muscles were kept carefully relaxed, any attempt to throw them into action causing pain, especially between the crest of the ilium in the axillary line and the great trochanter, the pain radiating forwards towards the anterior superior spine and upwards over the right erector spinæ. The measurements from the centre of the sacrum to the median line in front over the buttock were—right 49 cm., left 47 cm. Firm massage of the buttock and loin was administered for fifteen minutes. On April 12th the measurements were—right 48 cm.; left 47 cm. After two or three days' massage the severe pain subsided, though it was not until some days after this that the patient was able to assume the erect posture and to maintain it without painful effort.

In the first case daily massage of the part for seven days completely restored the patient to the painless use of the affected limb, and after the first four days he was able to walk and maintain an almost erect position, both standing and walking; but the treatment was initiated within twelve hours of the appearance of the local deformity. In the second case, however, there was a lapse of ten days between the commencement of the pain and stiffness and the date on which the patient first saw Mr. Keetley and myself. Owing to the engagements of the patient, he was unable to attend for massage regularly, otherwise I believe that the pain, swelling, and deformity characteristic of this new accidental malady would have more readily been reduced. The lesion, if so it may be termed, which I venture to suggest existed in these two cases, somewhat akin in their nature and etiology to tennis-elbow, appears to me to consist of a strain and possible

rupture of a few fibres of the anterior portion of the glutei. It will be remembered that the anterior fibres of the glutei are said to rotate the thigh inwards, which is precisely the attitude vigorously adopted at first in making the "driving stroke." The aponeurosis of the erector spinæ is suddenly rendered tense when the trunk is rotated upon itself, as the "driver" is forcibly thrown upwards and then backwards before being brought down to strike the ball, and it is not difficult to understand how, by the repetition of this exercise on the part of a neophyte, the glutei may easily become over-strained, even when they are not suddenly called into action to maintain the equilibrium of the player, when, as I believe sometimes happens, in his earlier efforts he fails to strike the ball. It appears to be the habit of some professionals to keep the beginners under tuition constantly practising certain strokes, not the least important of which, from a golf point of view, being the use of the "driver," which is not infrequently broken in the attempts made by neophytes to attitudinise on the model of old and distinguished players.

Though the conditions I have ventured to describe may appear to be comparatively trivial, yet I think, in view of the largely increasing number of golf players, it may not be uninteresting to record the existence of certain avoidable evils arising out of unskilful play, which may indeed result in more permanent mischief than existed in the two cases above described.

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THE RECENT PANDEMIC OF INFLUENZA: ITS PLACE OF ORIGIN AND MODE OF SPREAD.

BY FRANK CLEMOW, M.D. EDIN.

II.—ITS MODE OF SPREAD.

(Continued from p. 143.)

OF greater practical importance than the question as to where influenza arose are the questions connected with the mode of spread of the disease. The two camps of contagionists and aerial-transmissionists are both represented in the Russian literature of the subject; but it should be added that most Russian observers who support the aerial-transmission theory also hold that the disease may be spread by human agency, and consider influenza to be at the same time contagious and miasmatic. I propose here to bring forward some of the evidence that has been published bearing upon this point. Did influenza spread through Russia more quickly than a man might travel, and did it follow the lines of human intercourse? The two questions may be answered together by comparing the dates of the first cases of the epidemic in different towns. In the map which appeared with the last article some of the main routes of trade and travel in Russia (particularly in Asiatic Russia) were shown, and the dates of invasion by influenza of many of the more important towns were also indicated. Influenza appeared in Petropavlovsk at the end of September, 1889.[1] Thence to Tomsk is a distance of about 1000 miles, which could be travelled by post in about six days. In Tomsk influenza broke out on Oct. 7th. Nine days later than in Tomsk the disease appeared in Krasnoyarsk, some 370 miles further east along the great Moscow tract. It did not reach Irkutsk until Nov. 22nd, or forty-six days later than its appearance in Tomsk. Beyond the Baikal Lake its course was even slower. Tchita was invaded on Dec. 12th, Stretinsk not until January. Here the road ends and passengers for Vladivostok, Russia's naval station on the Pacific, descend the Amur by steamer to Khabarovka, thence ascend the river Ussuri to Kamne-Rybolof, whence there is a post-road to Vladivostok. Influenza broke out in the last-named town at the end of May, and there is some interesting evidence of the importation of infection, not from the west by road, but by steamer. The disease broke out immediately after the arrival of the first steamers of the Russian volunteer fleet from Odessa, on the opening of the navigation season of 1890. On the island of Sakhalin the like fact was observed, the earliest cases being among the sailors of a certain lighthouse immediately after the arrival off the lighthouse of the steamer *Baikal*.[2] From Vladivostok influenza passed along the rivers Ussuri and Amur, reaching Blagovéshtchensk in July and reinfecting Stretinsk in August. This was the course of influenza to the east of its place of origin. To the west its rate of progression was much more rapid, but apparently not more so than that of an ordinary traveller. The journey from Petropavlovsk to St. Petersburg *viâ* Tiumen, by rail to Perm, thence by the rivers Kama and Volga to Nijni Novgorod, and thence by rail through Moscow, could be accomplished in eleven or twelve days. From Tcheliabinsk through Ufa and Samara the journey could be completed by railway in some six days. Between the date of the appearance of influenza in either of these towns and the date of the first cases in St. Petersburg at least three weeks elapsed. In the towns along the first route influenza manifested itself in Perm in the "middle of October," in Kazan in the "middle" or "end of October," in Nijni Novgorod in the "beginning" or "middle of October,"[3] and in Moscow about the 18th of the month. Of towns along the second route Ufa and Samara are the most important: in Ufa the epidemic passed unnoticed, but there was a great increase in cases of illness in the town during the early days of October and even at the end of September; in Samara influenza appeared on Oct. 27th. Influenza seems also to have followed the course of certain rivers. Along the Ural river the disease appeared in Orenburg on Nov. 1st, in Uralsk on Nov. 13th and in Gurief at the mouth of the river on Nov. 22nd. Along the Volga it appeared in Simbirsk on Oct. 22nd, in Samara on the 27th, in Saratof on the 28th, in Tsaritsyn at the end of the month and in Astrakhan at the beginning of November. The influenza infection therefore travelled down these rivers in the direction of their current,[4] while the cholera infection, it will be remembered, was carried up them in the reverse direction. This difference was obviously due to accidents of geographical position of the rivers, and not to anything inherent in the nature of the two diseases. In one case towns on the upper reaches of the rivers, in the other towns at their mouths, were nearer to the place of origin of the epidemic, and were consequently attacked earlier in the course of the disease. The Caucasus was not invaded until November, and some parts of it not until the later dates of that month or the early days of December. The Transcaucasian Railway is said to have assisted in the spread of the disease from Tiflis.[5] Further west, Rostof-on-Don was invaded on Nov. 16th; Tambof at the end of October; Kief on Nov. 1st; Kharkof on Nov. 5th; Poltava on Nov. 23rd; Vilna on Nov. 10th; and Warsaw on Oct. 29th. It would serve little purpose to quote the dates of invasion in other towns in European Russia. There is complete and more or less rapid railway communication over all this part of the country. More important evidence may be derived from the provinces of Central Asia where there are no railways (except in Transcaspia), where the roads are few and communication slow, and where, therefore, the course of the epidemic could be more easily followed.

In Central Asia influenza appears to have passed from north to south and from west to east and to have followed the post-roads. It appears to have been carried either from Petropavlovsk or Orenburg to Orsk, where the epidemic began in the early days of November. In Kazalinsk (457 miles to the south in the province of Turgai) the epidemic began on Nov. 28th; in Perovsk (233 miles further along the same post-road) on Dec. 4th; in Turkestan (208 miles) on Dec. 15th; and in Tchimkent (103 miles) two days later. At Tchimkent the road joins another great line of communication running east and west. This is a post-road, beginning at Samarcand on the west (the terminus of the Transcaspian railway), and running through Tashkent, Tchimkent, Aulié-Ata, Iliskoé, and Kopal, thence turning northwards to Sergiopol and Semipalatinsk, where it is joined by other roads from Omsk and Kolyvan on the Moscow tract. Of the course of influenza in Transcaspia and along the Transcaspian railway, but little evidence is forthcoming. In Askhabad the disease appeared about the middle of November.[6] Among the troops stationed there the

[1] As in the first article, all the dates mentioned are according to the Old Style.

[2] Army Medical Report. It is not stated whether the sailors of the lighthouse had held communication with those on the *Baikal*, or whether influenza was present on the steamer; but both these statements appear to be implied by the context.

[3] According to different replies received by the army medical authorities.

[4] It also travelled down the river Lena in the Siberian government of Yakutsk.

[5] Journal of the Caucasian Medical Society, 1890, No. 51. Dr. Frantzius.

[6] Russkaia Meditzina, 1890, p. 19. Grippe and its Complications in Askhabad, Dr. Minkévitch.

first case was on Nov. 15th. How the disease arose in Askhabad, and whence it was imported thither, there is no evidence to show. It did not come from the east, as it will be seen that Kaachka, Samarcand, and other places to the east were not affected until later. It could scarcely have come from the north across the trackless desert of Kara Kum. To the west the only evidence of influenza is that of an outbreak in Kizil Arvat (near the Caspian end of the railway) on Nov. 15th. It could not have been brought from the Caucasus across the Caspian Sea, as Baku was not affected until Nov. 25th, and in other ports on the Caucasian shore the disease appeared even later. It might possibly have been imported from Astrakhan, where, as already stated, cases occurred as early as the beginning of November. From Askhabad the infection spread eastward; it appeared in Kaachka on Dec. 1st, in Samarcand at the end of November, in Tashkent on Dec. 1st, in Tchimkent—as has been seen—on Dec. 17th, and in Iliskoé on Dec. 24th. In Viernoé, on a branch road from Iliskoé, the first cases were observed on Dec. 18th, and in Prjevalsk, further along the same road, on Jan. 12th. Another route followed by the infection appears to have been southward from either Omsk or Kolyvan on the Moscow tract to Semipalatinsk, where it appeared in the beginning of November; thence, on the one hand, to Ust Kamenogorsk, where the first cases occurred on Nov. 17th, and, on the other, through Sergiopol (where there was no epidemic at all, either among the troops or the civil population) to Kopal, where the malady appeared on Dec. 11th, and where the road meets that already traced from Samarcand to Iliskoé.

It may, therefore, be asserted that, if the dates mentioned may be relied on,[7] influenza did not travel in Russia more quickly than human beings travel, and that it followed the lines of human communication. There thus arises the necessity for considering whether human intercourse may not have been the sole means of spreading influenza throughout Russia. Writing in the early days of the 1889-90 epidemic,[8] and founding my argument upon *a priori* grounds (the only grounds then available so far as the detailed course of the epidemic in Russia was concerned) and on the records of past epidemics, I expressed myself in favour of the theory which supposes that influenza is spread mainly through the air, and secondarily by means of contagion. The extreme rapidity with which influenza appeared to have spread across the steppes of Russia seemed to demand something more than transmission by human intercourse to explain it, while the evidence from past epidemics, if accepted without question, allowed of no other conclusion than the one I then stated. I do not venture to enter here into the historical question. The value of historical evidence has ever been a subject of keen debate and fixed differences of opinion. But so far as concerns the present brief chapter in the history of influenza, that relating to the 1889 outbreak in Russia, it certainly admits of the conception that contagion was the sole means by which the malady was spread. The publication of later documents has shown that the course of the disease was not so rapid as was at first believed. The earliest cases were not in Tomsk, as was stated at the time, but at least 1000 miles nearer St. Petersburg. The epidemic did not travel across the thinly inhabited Central Asian steppes, but appears rather to have arisen in them, and in that part of them which adjoins a line of constant and comparatively rapid communication. Further, the statements which were so freely made at the commencement of the epidemic that the disease appeared simultaneously in parts of the country widely distant from each other, and that it attacked suddenly and at the same time large numbers of the population, are contradicted by the detailed reports that have since been published. Even in towns quite near the source of the epidemic there is no instance of the sudden attack of the whole or a large proportion of the inhabitants. In Petropavlovsk, which has been seen to be one of the earliest places affected, "influenza appeared in the 4th West Siberian line battalion, and not at the same time in the different regiments, but first in the 1st, then in the 3rd, later in the 2nd, and finally in the 4th; after that it appeared in the battery, and then in the local troops. When it had already begun to decline among these the men of the 3rd Cavalry Regiment of Siberian Cossacks began to suffer."[9] There is exactly similar evidence from Tobolsk, Tashkent, Tcheliabinsk, Kars, Kutais, Tiflis, Moscow, Archangel, Odessa, and, in brief, from every town whence accounts of the epidemic are forthcoming. In many of the replies to the army medical authorities and to the National Health Society statements are made that the epidemic seemed to the writers to appear suddenly over wide areas of country and to attack simultaneously large numbers of people, but these statements always take the form of general impressions and are not supported by facts, and wherever detailed accounts of the course of the epidemic are forthcoming it is invariably seen that it began gradually, that isolated cases or cases few in number marked the first days of the epidemic, and that the cases gradually increased until a maximum was reached, which was followed by a gradual decline. In the Russian army this was the course followed by the epidemic in every military district throughout the empire. This is demonstrated in the detailed tables showing the daily numbers of fresh cases in each military district, which appear in the Appendix to the Army Medical Report, as well as by the series of diagrammatic "curves" of the epidemic in the same districts, published together with the maps already described.

There are therefore strong grounds for believing that contagion was a highly important if not the sole medium by which influenza was spread throughout Russia. The behaviour of the disease in this country in the early days of its reappearance in pandemic form is thus brought into accord with its behaviour in the West of Europe and in the later period of its course. That the diffusion of influenza in England was mainly, if not entirely, due to the action of contagion has been placed beyond doubt. This was first seriously insisted upon by Dr. Richard Sisley in his paper read before the Epidemiological Society on May 21st, 1891; and in the summer of that year he and, on behalf of the Government, Dr. Franklin Parsons, working separately, but on similar lines, both published abundant evidence pointing to the same conclusion. There, still, however, remained to explain the rapid rush of influenza across Europe and particularly across Russia. Later and more trustworthy information has shown that, at least in the last-named country, the rush was not so rapid as was at first thought, and not more rapid than could be accounted for on the supposition that the malady was spread by human intercourse. The necessity for conceiving that the infection of influenza might be carried further through the air than that of other zymotic diseases therefore disappears, so far as the latest pandemic of the disorder is concerned. Much positive evidence pointing to the spread of influenza by contagion in Russia might be quoted. In a large number of instances towns were more early affected than the surrounding villages. In Odessa, "while all ranks of society were suffering from the disease, it had scarcely begun to appear in the villages around."[10] In Uralsk influenza first appeared in the town and subsequently in the neighbouring villages and *stanitzas*.[11] In Voronezh influenza broke out early in November, but in the village of Pridatchi, two versts distant, it did not appear until a week and a half later.[12] In Tcheliabinsk the disease prevailed earlier than in the surrounding villages, and an interesting case is described, where "in one of the gold-mining settlements, twenty versts from Tcheliabinsk, the disease seized the population only after the arrival of a workman from the town, who sickened the day of his arrival."[13] From among the Cossacks in the Terek province of the Northern Caucasus there is similar testimony. Dr. Gusef wrote from Khazav-Urt that influenza attacked the surrounding *aouls* or Cossack villages later than it appeared among the troops in the town.[14] On the Nijni Novgorod Railway the epidemic appeared in three main points along the line, and thence spread to the intermediate places. One of the medical officers to the railway wrote: "As regards the influence of towns, villages, and uninhabited tracts (and as an uninhabited tract I regard the railway line, upon which houses stand singly and isolated, either among fields or forests, are not overcrowded and are innocent of many of the insanitary conditions existing in towns) upon the spread of the epidemic, I would conclude, judging by the nearest town, six versts from the line, that the conditions existing in towns favour

[7] The dates are taken from various sources. The larger number are taken from the Army Medical Report, and many refer to the occurrence of influenza among the troops only.

[8] Public Health, April 1890: Epidemic Influenza, a paper read before the Society of Medical Officers of Health on March 14th, 1890.

[9] Army Medical Report, p. 243.

[10] Ruskaia Meditzina, 1890, p. 359. Article by Dr. Matzokin.

[11] Army Medical Report, p. 45. A stanitza is a Cossack settlement.

[12] Ibid., p. 76.

[13] Ruskaia Meditzina, 1890, p. 663. Dr. Zagerski.

[14] Ibid., 1890, p. 83.

the spread of influenza. The inhabitants of this town, especially workmen in factories, suffered almost without exception, whilst of those living along the line only a very small number sickened."[15]

The following instances further prove that contagion plays a considerable part in the spread of influenza. In Rybinsk (Yaroslavl government), according to Dr. Gatchkovski, "the disease, when it made its appearance in a household, did not attack all the members at the same time; on the contrary, it generally appeared to pass on from one person to another,"[16] and he gives the following histories. In one family a girl sickened first, then a boy two years old, then a boy aged ten, and, finally, the father and mother. In another house the father first fell ill, three days later three children were attacked, and after another interval of three days the mother sickened.

Dr. Shtcherbakof gives exactly similar evidence from Rostof-on-Don.[17] He writes: "The disease did not appear at once in all members of a family; there were cases where many even remained free from it altogether; but for the most part, if the disease appeared in any household, all the members of the family were attacked one by one."

Dr. Smolitchef wrote from Labinsk (a Cossack *stanitza* in the Kuban province): "I can present many instances where for a whole week or more, at the time of the very height of the epidemic, separate families remained quite well; but it only needed one member of the family to sicken, and in one or two days every inmate of the household who was susceptible to infection fell ill. Thus, at the beginning of the epidemic, M. K—— returned from Rostof-on-Don, where grippe prevailed and where he contracted the disease, and in one day the whole of his family, excepting his wife, sickened. In my own house all my family were well, the children had not been out of doors for a week; but two days after I fell ill all the family—three children, wife, and nurse) were down with influenza, while three servants who lived in a lower flat of the same house remained well. The sickness always seemed to me like a spark falling among inflammable material."[18] The instance of Moscow has already been quoted, where, "from Oct. 18th, the cases of influenza became much more frequent, and about this time from the scattered sporadic cases there were formed 'nests,' where the infection was more concentrated than elsewhere."[19] One of the most interesting instances was furnished by the town of Prjevalsk, in Central Asia, where the postmaster was the first to sicken, but whether the infection was conveyed by means of letters or (more probably) was contracted by him while travelling is not quite clear. "On Jan. 4th, 1890, after the sorting of the post the postmaster sickened; he had returned two days before from a tour of his district, in which he had inspected all the post stations, among them one at a considerable distance from Prjevalsk, and where a disease very like grippe prevailed. I was summoned to attend the postmaster," wrote the senior physician to the local lazaret, "and on the next day I began to feel ill; on the third day I had severe rigors, repeated several times, headache, catarrh, cough, etc.; but as there was no time to lie up in consequence of the extreme scarcity of doctors and the great amount of work to be done I continued my visits to the lazaret. Every day the out-patients were first seen by me, and these must have caught the infection from me and carried it to and spread it among the men of the garrison. It was a remarkable fact that all the acquaintances with whom I had occasion to converse on Jan. 8th and 9th were also seized with grippe, although of a very light character. These facts, and also the circumstance that after influenza patients were admitted to the lazaret all the patients already lying there were quickly attacked with the disease, point to the infectiousness of the air expired by those sick with influenza."[20]

In Viernoé, also in Central Asia, "the officials in the post-office were the first to suffer; then on Dec. 18th a Cossack sickened. The Cossack was sent to the regimental hospital, where he remained for two days, and was then discharged. Two days later (Dec. 20th) eight men of the 2nd *Sotnia*[21] suddenly sickened. It must be noted that the *Sotnia* was quartered close to the hospital and that there was constant communication between the two buildings. Three days later cases of grippe appeared in the military school and in the band."[22] A second reply from the same town confirms this order of events, and the writer adds that influenza was confined to the postal officials for a space of three days. Finally, a third authority in Viernoé, the surgeon to the artillery brigade, wrote that the first cases in the brigade were among men who were sent to fetch the letters from the post. These instances seem to point clearly to the possibility of the infection being carried by means of letters or parcels.

I must not trespass further upon valuable space to quote the numberless other examples that are to be found in the Russian literature of the subject pointing to the spread of influenza by contagion. I would briefly repeat, in conclusion, that: (1) influenza is constantly present in many parts of Russia; (2) it began to prevail in epidemic form in or near the Kirghiz Steppes in the autumn of 1889; (3) the cause of its becoming epidemic is not known; (4) it spread from the Kirghiz Steppes in all directions, north and south, and east and west; (5) it followed the lines of human intercourse; (6) its rate of diffusion was less rapid than was at first believed, and not more rapid than could be accounted for on the theory that it was spread by contagion alone; and (7) there is much positive evidence of the spread of influenza by contagion in Russia, even in towns near to the place of origin of the epidemic and in the earliest days of its course.

St. Petersburg.

[15] Meditzinskoé Obozriénié, 1890, vol. i., p. 122. Influenza on the Moscow—Nijni-Novgorod Railway. Dr. V. V. Korsakof.
[16] Russkaia Meditzina, 1890, p. 51.
[17] Ibid., p. 84.
[18] Ibid., p. 132.
[19] Meditzinskoé Obozpenie, 1890, vol. i., p. 109.
[20] Army Medical Report, p. 244
[21] A sotnia of Cossacks is a division consisting of 100 men.
[22] Army Medical Report, p. 245.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

A NOTE ON CODEIA.

BY JAMES BRAITHWAITE, M.D. LOND., &c.,
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INVALUABLE as opium and its alkaloid morphia are, they, however, have several disadvantages, some of which can be avoided by the use of codeia, which has peculiarities of its own worthy of remark. Many patients cannot take opium or morphia on account of the sickness which follows the next day. Codeia rarely produces sickness, and after taking, say, two-thirds of a grain in the evening of one day there is freedom from any effects whatever after a cup of coffee the next morning. This is a very important practical point, provided the codeia answers the same end as the opium. The former drug seems to have a special action upon the nerves of the larynx; hence it relieves a tickling cough better than any ordinary form of opium. Two-thirds of a grain may be given half an hour before bedtime.

It was in my own case that I first began to use codeia. For more than twenty years, usually once every winter, I have been seized with a spasmodic cough just before going to sleep, which becomes so severe that I am compelled to get up and sit by the fire. After an hour or two I return to bed and am free from the cough till the next winter. In other respects I enjoy good health. Once, and once only, the affection returned on two or three consecutive nights. There is no expectoration, and the affection is as much a laryngeal spasm as a cough. The cold which originates this is usually trivial. If I take opium in any form I am sick the next day, and if I take chloral I have a headache and feel unfit for work. Many years ago I found that one grain of codeia taken about two hours before bedtime absolutely stops the attack and leaves no unpleasant effect the next morning. As I have some warning when an attack is impending I am now able to defy the cough.

In cases of vomiting from almost any cause quarter-grain doses of codeia in an effervescing mixture usually answer exceedingly well, or half a grain may be taken at rather longer intervals. In the milder forms of diarrhœa two-thirds to one grain of the drug usually answer most satisfactorily, and there are no unpleasant after-effects. If, however, there is great pain the analgesic effect of codeia may not be sufficient, and opium itself or morphia hypodermically may be

required. There is a curious form of diarrhœa met with in elderly women, the etiology of which I do not quite understand. Before the proper time to get up and perhaps once or twice during dressing there occurs a mild form of diarrhœa. As this continues year after year it gradually impairs the health. I find it best treated by half a grain of codeia, or even two-thirds of a grain, about four o'clock in the morning. It should be given in the form of a pill. Sometimes chronic neuroses may be cured by breaking the continuity of the pain, for which purpose I have found this drug peculiarly suited. It is better in such cases to prescribe it in a rather large dose at a long interval, as two-thirds of a grain or a grain every twenty-four hours. This need not prevent other treatment being adopted if necessary. Codeia will not entirely take the place of morphia, for it is not so powerful. It will not relieve an intense pain, but it has distinctly its own sphere of action. It is usually given in the form of pills, as it is so difficult to keep in solution. This answers very well in diabetes, in which disease, as is well known, it is invaluable. In many cases, however, a solution is decidedly preferable, and if it is dissolved by heat and a little spirit added it keeps very well except in cold weather, when it should be kept in a room with a fire. A small quantity only should be prepared at a time.

Clarendon-road, Leeds.

A CASE OF INJURY TO THE THROAT AND HARD PALATE.

BY SURGEON-CAPTAIN HOLMDEN, M.B., M.C. EDIN.,
BECHUANALAND BORDER POLICE.

A NATIVE employed at a cattle post a few miles distant was brought into Macloutsie Fort, British Bechuanaland, on Dec. 14th, 1893. His companion stated that an ox had struck him beneath the chin with its horn about three hours before his arrival at the fort and that he had been bleeding from the wound, the nose, and the mouth. When I first saw the patient he was lying back in a chair, partly sensible, the mouth being slightly open. The pulse was 68 per minute, and respiration difficult; the temperature was 98°F. There was an irregular wound about three-quarters of an inch in length, occupying the middle line between the symphysis of the lower jaw and the hyoid bone, and extending into the mouth; there was slight hæmorrhage. On examining the mouth it was seen that the horn had entered just to the left of the anterior attachment of the frænum linguæ, pushing the tongue to one side and fracturing the hard palate, and, entering the left nasal fossa, it had fractured the left inferior turbinate bone. The treatment consisted in the removal of spicula of bone from the hard palate and left nasal fossa, syringing the wounded parts with a 1 in 25 carbolic acid solution, and applying a wet antiseptic dressing to the external wound.

On Dec. 15th the patient slept for a few hours and was able to take some fluid nourishment; the temperature was 101° and the pulse 84. On the morning of the 16th the patient was not so well, but he was still able to swallow fluids. The wounds were dusted with iodoform and boracic acid. The temperature was 101·5° and the pulse 87. Ten grains of compound ipecacuanha powder were ordered to be taken at bedtime. From this date the patient made an uninterrupted and uneventful recovery, returning to his work on Dec. 24th.

NEURITIS SUPERVENING DURING THE TREATMENT OF CHOREA BY ARSENIC.

BY JOHN A. ADAMS, B.A., M.B. R.U.I.,
SENIOR HOUSE SURGEON TO THE HALIFAX INFIRMARY.

ON Sept. 15th, 1893, a bright girl of eleven years of age was admitted into the Halifax Infirmary with well marked chorea. She had been ill for two weeks and was now unable to walk or feed herself. She was at once treated with ten-minim doses of liquor arsenicalis, B.P., three times a day. During the first week there was no change in her condition. The movements then began to get less and she continued to improve for a fortnight, during which time she had no sickness, diarrhœa, or other symptom of arsenical poisoning. At the end of this time she expressed herself as being much better, the choreic movements had almost ceased, she could feed herself and was permitted to get up. On Oct. 8th she complained of pain and difficulty in swallowing, when the arsenic was discontinued. Two days later she said her legs were painful and felt numb, and on examination there was found some paresis of the legs, and the calves were tender, sensation was also impaired, and the patellar reflex was absent on both sides. A day or two later the arms became affected in a similar manner, and gradually all the limbs became powerless, the muscles becoming flaccid and extremely wasted. She was now unable to turn in bed or to help herself in any way. The temperature ranged from 99° F. in the morning to 100° in the evening (on one occasion to 101°), and continued so for three weeks, when she gradually began to recover under the use of prepared food, cod-liver oil, tincture of nux vomica, massage, and faradaism. On Jan. 12th, 1894, the patient had so far improved that she could feed herself and sit up in a chair, but could not walk properly. The numbness had disappeared, and the muscles had regained much of their strength and tone. The interesting point about this case is—in view of the present much-advocated use of large doses of arsenic in the treatment of chorea—the possibility of the occurrence of peripheral neuritis without any of the cardinal symptoms of arsenical poisoning, though the case be closely watched in hospital.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.* lib. iv. Proœmium.

MIDDLESEX HOSPITAL.

A CASE OF CANCER OF THE THYROID GLAND; DEATH; NECROPSY.

(Under the care of Mr. HENRY MORRIS.)

MALIGNANT disease of the thyroid gland may be either primary or secondary, and secondary disease by extension from neighbouring structures, especially from the œsophagus, is the more common and less important. Most of our museums contain specimens which purport to be malignant disease of the thyroid gland, but it is not always possible to tell whether they are sarcomatous or carcinomatous, and unless they have been examined microscopically by some one known to be conversant with the occasional resemblance of innocent tumours of the thyroid gland to malignant ones, a statement that a particular tumour was cancerous—when its clinical characters were those of a simple growth—would be received with hesitation. These specimens are not numerous, nor are the cases recorded in surgical literature. Besides the rarity of the disease there are many points in this completed record which render it of unusual interest. There was no history of previous enlargement of the gland, and in the majority of such cases this is said to have been met with. Malignant goitre is more common in Switzerland, where goitre of simple character is frequent, and is more common in females. This case is a good example of the disease, on account of its rapidity of progress, severe pain, infiltration of parts, and the history of the attacks of dyspnœa early in the illness. Death ensued from suffocation, but the exact way in which it was brought about is not very evident, there being no growth in the air passages or hæmorrhage into the substance of the tumour. At present the number of instances in which a successful treatment of malignant disease of the thyroid gland can be claimed is so small that operation is scarcely justified even in apparently favourable cases. There was no chance of attempting anything in the way of removal in this case. Dr. Koester has given the results of fifty cases of operation for "cancer" of the thyroid gland. Eight of the patients died within twenty-four hours of operation, five at the end of the first week and eight at the end of the second week. Only four remained free from recurrence at the end of six months, but one continued well at the end of at least four years after the operation. We are indebted for the following notes to Mr. G. H. A. Berkeley, house surgeon.

A man forty years of age was admitted into the Middlesex

Hospital on Sept. 29th, 1893. He had suffered for the previous four or five years from severe headache over the whole of the right side of the head and neck, extending down to his clavicle; the pain was very intermittent. About six weeks previously he noticed a swelling on the right side of his neck, which was at first painful and had since become more painful and enlarged. On admission the whole of the lower and front part of his neck on the right side appeared to be swollen a little; the swelling was very hard and smooth in front, but along its outer border it seemed to be rather lobulated. It projected to the outer side of the sterno-mastoid, which stretched over it, as could be proved by putting that muscle into action. The swelling projected a little over the sternum and part of the right clavicle. At the posterior border of the sterno-mastoid there were some enlarged glands. No enlargement of the glands in the axilla could be felt. Vertically the greatest length of the swelling was 3¼ in., along the anterior margin of the sterno-mastoid it was 3⅜ in., and the greatest breadth was 3⅜ in. The patient had great pain over the swelling, and injections of morphia were necessary in order to relieve him. For the next fourteen days he gradually became worse, nothing seeming to give him any relief except morphia injections. The tumour was now visibly bigger and the veins over it were more distended. A grooved needle had been put in it twice, with no result except the leakage of a little dark blood. The pain occurred in paroxysms, it being of a very severe nature while it lasted. On Oct. 13th the greatest vertical length of the tumour was 5⅞ in., along the sterno-mastoid it was 5½ in., and the transverse measurement was 5¼ in. On Oct. 20th the patient had a sudden fit of choking. Without warning he got black in the face and all his limbs became rigid. After a little time he got better again. During the next ten days the patient grew much worse. The skin over the swelling became œdematous and cyanosed, while the veins were much more distended. The seizures of pain were more frequent and more severe, and on a good many occasions the patient appeared as if he would choke, when he managed to bring up a little phlegm, which seemed to relieve him. All this time he was able to eat with pain and had a fairly good appetite. The speech was not affected, although the voice was a little husky, and there was nothing particular in his cough except its huskiness. He was wasting rapidly. The growth had extended in all directions and at this time enveloped the front and sides of the neck, extending farther back on the right side than on the left. On Oct. 28th its greatest vertical length was 6⅛ in., along the anterior margin of the sterno-mastoid it was 7⅛ in., and its transverse measurement was 7½ in. During the next week the tumour had the same appearance, except that the skin over it became more cyanosed. It was always hard. The pain grew worse and about once a day the patient had a choking fit, becoming black in the face and struggling a great deal. When he recovered from these attacks he was better for the time being, but stated that he thought he should die at each attack, the agony and distress were so great. On Nov. 5th the patient had a sudden seizure, became black in the face, jumped out of bed, and died directly on the floor, apparently choked.

Report of the post-mortem examination by Dr. VOELCKER.—The right lobe of the thyroid gland was found to be represented by a large mass measuring 5 in. from above downwards and extending from the side of the thyroid cartilage to the manubrium. The mass measured 5 in. across. It was closely adherent to but could be separated from the skin over it. On section the growth was found to be pale and lobular, and in places encapsuled adenomatous structures the size of a peeled walnut were seen. The growth was not very vascular. On the right side it extended up to and invaded the mylohyoid muscle, but to the left it only invaded the isthmus and the lowest part of the left lobe of the thyroid gland. The left lobe was otherwise natural, although some lymphatic glands infiltrated with new growth were lying superficial to the upper portion. The right sterno-mastoid muscle was adherent to the growth. The sublingual and submaxillary glands were free from growth, as was also the gland between the genio-hyoglossus muscles. The manubrium sterni was invaded by growth from its posterior surface, only a shell of bone being left externally. The twelve nerves were not involved. The right external jugular vein was thrombosed, but this might have been a post-mortem change. Seen from the back the œsophagus was natural. The right carotid artery was pushed outwards by growth, but was otherwise natural. The trachea was not flattened, but the glands and lymphatics were infiltrated with new growth extending up on either side of the trachea. The right vagus was adherent to a mass of infiltrated glands for an inch and a quarter above the subclavian artery. The right vagus recurrent was also adherent to another mass, but was not obviously wasted. The growth again compressed this nerve at its entrance into the larynx, but there was no atrophy or pallor noticed in the laryngeal muscles; the vocal cords appeared to be natural. The aryepiglottic folds were œdematous. No new growth was seen within the larynx or trachea. The right sympathetic nerve was not involved and the right internal jugular was natural. On the left side the left vagus recurrent was adherent to some infiltrated glands at the same level as on the opposite side. The left lobe of the thyroid gland was natural, except for the conditions before noted. The left vagus and sympathetic were natural. The tongue and pharynx were natural. Two small nodules of new growth were found in the lower lobe of the right lung just beneath the pleura, and one nodule was found at the base of the left lung. There was no new growth in any other organ. Microscopical examination showed the growth to consist of large polyhedral and oval epithelioid cells, with large nuclei arranged in alveoli with delicate fibrous walls. There was no glandular arrangement

to be made out. In parts the new growth showed fatty and in others mucoid degeneration, and in places the growth was infiltrated by inflammatory round cells.

Remarks by Mr. MORRIS.—The great rarity of carcinoma of the thyroid gland no doubt explains why, in all the years that I was in charge of the cancer out-patient department of the Middlesex Hospital, I never once had before me a case of this kind. The microscopic examination confirms the view taken at the bedside—viz., that the growth was a carcinoma. It was not one of those cases in which a hard, fibrous goitre has subsequently undergone a malignant degeneration; nor was it one of those enlargements of the thyroid gland which have been found associated with pulsable tumours in the bones of the skull, of the limbs, in the vertebræ, and elsewhere. It is worthy of notice that there were disseminated nodules of cancer in the lungs, a condition not by any means always present in the ordinary form of cancer of the thyroid gland. It will also be noticed that there were in places in the thyroid gland encapsuled adenomatous structures the size of a walnut. The absence of any great vascularity of the new growth is also noteworthy. The illustration shows that the thyroid gland had attained a very considerable size, and the periodic measurements which were made accurately indicate its rate of growth. The whole duration of the disease did not in all probability extend to three months. It was this

rapidity of growth which led, and very naturally so, Mr. Norton, who first saw the case, to the opinion that the enlargement must be inflammatory and that an abscess was forming. There was no tendency for the cancerous tissue to disintegrate or break down into one or more cysts or cavities. The fearful paroxysms of dyspnœa, attended with such ghastly effects as were witnessed in this patient, are explained by the pressure effects of the growth upon the pneumogastric nerves, and more especially upon both right and left recurrent laryngeal branches.

LEICESTER INFIRMARY.

INTERNAL STRANGULATION IN AN APERTURE OF THE MESENTERY; ACUTE INTESTINAL OBSTRUCTION; OPERATION; RECOVERY.

(Under the care of Mr. GEORGE COOPER FRANKLIN.)

STRANGULATION by false ligaments, by the omentum, by the appendix, and through abnormal slits and apertures occurs most frequently in persons between the ages of twenty and forty, according to Mr. Treves. The following account is interesting for the reasons given in the remarks, and a case of recovery after operation for internal strangulation of five days' duration is always worth recording. We have no means of judging as to the mode of formation of the hole in the mesentery, or as to the portion of bowel which was strangulated (usually the ileum). For the notes of this case we are indebted to Mr. G. Winfield-Roll, senior house surgeon.

A man seventy-three years of age was admitted to the Leicester Infirmary on Oct. 12th, 1893, with symptoms of acute intestinal obstruction. The patient, a very healthy and temperate man, was in his usual health on Sunday, Oct. 7th. The following day at 3 A.M., while in bed, he was seized with sudden abdominal pain and vomiting. On that day there was a slight action of the bowels, but no further action in response to warm-water injections which were administered; on the 9th and 10th the vomiting continued and on the 11th and 12th the vomited matter was feculent. He was admitted to the infirmary on the afternoon of the 12th, and was operated on at 7 P.M. the same evening. When admitted the face had a pinched appearance and livid colour, and the eyes were much sunken. There was a general distension of the abdomen, with paroxysmal pain and tenderness referred to the right side of the umbilicus. Rectal examination gave a negative result. The breath had a distinctly stercoraceous odour. Chloroform was given. Mr. Franklin opened the abdomen by the usual median incision and found a coil of small intestine about six inches long tightly strangulated in a circular aperture in the mesentery. Passing a hernia knife, he enlarged this opening and then proceeded to manipulate the strangled coil through the opening. The bowel had a deep port-wine colour and was deeply indented by the ring. The abdomen was closed with silk sutures and dressed with cyanide gauze and wool; there was no drainage. For two days he took water only by the mouth and was supported by nutrient enemata. On Oct. 18th he began to take a little milk and brandy by mouth, and the quantity was gradually increased. On the fifth day after operation there was a slight rise in the temperature, being caused by suppuration around two stitches. Notwithstanding this the wound was soundly healed on the tenth day. On the eighth day after the operation the bowels acted in response to an injection of warm water, and all the sutures were removed. Solid food was gradually commenced and the patient made an uninterrupted recovery and was discharged in his usual health on Nov. 7th.

Remarks by Mr. WINFIELD-ROLL.—Internal strangulation of the small intestine would appear to be most common during early life, and the average age of its occurrence is, I believe, given by some authorities as twenty-two years, which would render the present case in a man seventy-three years of age unusual. A point worthy of notice was that the chief spot of pain and tenderness was described by the patient as being to the right side of the umbilicus, and not directly at the umbilicus, as is usually the case with abdominal lesions, and the strangled bowel was found to the right of the umbilicus, where he located the pain.

Medical Societies.

MEDICAL SOCIETY OF LONDON.

Suppurating Ovarian Cysts communicating with Rectum.—Deformations of Genital Organs in Australian Aborigines.

AN ordinary meeting of this society was held on Feb. 5th, Mr. GOODSALL, Vice-President, being in the chair.

Mr. HARRISON CRIPPS read a paper on four cases of Suppurating Ovarian Cysts which communicated with the Rectum. The first case was that of a nurse aged twenty-six who complained of pain in the left iliac fossa and soon afterwards noticed an enlargement there. Later a sudden discharge of over a pint of pus occurred from the rectum. On examination the cervix uteri was found to be displaced to the left, and a nodulated swelling was felt. A small opening with ragged edges could be felt in the rectal wall. The cyst was drained by puncture through the vagina, and this led to a closure of the rectal fistula. She was readmitted to hospital later, and the abdomen was opened, a thin-walled cyst being found behind the left broad ligament. Below this a second cyst with thicker walls could be felt, and from it pus was evacuated. Both cysts were removed, the lower one being firmly adherent, and a portion of its wall which was attached to the rectum was left *in situ*. The patient made a good recovery. The second case was that of a woman aged thirty-two who had given birth to a child two months before coming under observation. There had been some blood-stained discharge, and a fortnight before admission something broke, and pus escaped per rectum. A fixed and indurated mass was felt behind and to the right side of the uterus. At the operation a cyst, apparently originating in the broad ligament, was found to be adherent to the bladder and the rectum. It was shelled out entire and possessed no pedicle. A good recovery ensued. The third case was one of tubal gestation communicating with the rectum in a woman aged thirty. She menstruated in March and passed blood occasionally till the end of April, when she was seized with cramp-like pains in the abdomen; afterwards she had two more such attacks. On opening the abdomen the omentum was found to be glued to the upper surface of the tumour; the sac was adherent to the rectum, bladder and uterus. The tube was tied and the cyst removed, the latter containing a fœtus five inches in length. The cyst seemed to be purely intra-peritoneal and there was a small opening into the rectum. The patient became quite well. The fourth case was that of a woman aged thirty, who had an attack of what was said to be peritonitis eighteen months previously. A tumour as large as an apple was felt low down on the right side of the pelvis. The abdomen was opened and the small intestine and omentum were found matted together over the surface of the swelling, which appeared to be in the broad ligament. An opening in the rectum could be felt posteriorly, but owing to its position it could not be seen, and it could not, as in the other cases, be accurately closed. The patient gradually sank and died on the seventh day after the operation. The above four were the only cases of the kind that he had met with in a series of over 100 ovariotomies. Cases in which an opening had been accidentally made during the course of a complicated dissection were not referred to, but only such as had been produced by suppuration and softening prior to the operation, or where the discharge of pus from the bowel showed sufficiently clearly the nature of the case. He proposed two questions for discussion: (1) as to the propriety of abdominal section whilst there was still an open communication between the cyst and the rectum; and (2) if an operation were performed, the best means of dealing with the rectal opening. Drainage might be accomplished through the rectum, through the vagina, or by abdominal section above the pubes.—Mr. GOODSALL thought that in the fourth case it would have been better to have performed inguinal colotomy in order to divert from the pelvis the excretion of the bowel and thus give the fistula an opportunity of healing.—Dr. CULLINGWORTH said that the cases of simple abscess in the pelvic cellular tissue which burst into the rectum were much less frequent than was supposed. They were usually either suppurating tubes or small ovarian cysts. He had dealt with ten cases of suppurating ovarian cyst, six of which communicated with the rectum, two with

the vagina, one with the cervix of the uterus, and one with the bladder. Mr. Teale in 1889 gave details of two cases of pelvic abscess communicating with the rectum, in which he performed abdominal section, washed out the abscess, stitched the sac wall to the abdominal wound, and drained, with good results. He himself had treated one in this manner successfully, and, in another, decided to proceed further and remove the source of the suppuration. This did so well that he had followed the practice since, and he related several successful instances. He felt convinced that the bolder treatment by abdominal section was most likely to be efficacious, and he did not believe that the puncture of suppurating cysts from below was often satisfactory. If the cause of the suppuration were removed it was not necessary to attempt to suture the rectal fistula, which would close of itself.—Dr. ROUTH defended the method of attacking these cases from below. He had met with success by following this method in all but one case. If the tumour were easily to be reached through the rectum or through the vagina it should be punctured there. If the fluid withdrawn by aspiration were offensive the abscess sac should be frequently washed out with iodine. In many cases where the pus had no odour a simple aspiration sufficed for cure; a gum elastic tube was the best for drainage. If a rectal fistula already existed, that opening should be used for flushing out.—Mr. CRIPPS, in reply, said that in the case with double cyst the lower one seemed to be an ovarian, while the upper appeared to be a broad ligament cyst. In one of his cases, owing to the great thickness of the cyst wall and the small size of the cavity, more harm than good would have resulted from puncture. He closed the rectal openings because he feared the entrance of fæces into the peritoneal cavity rather than the exit of pus into the rectum.

Dr. GARSON then read some notes on Deformations of the Genital Organs practised by the Aborigines of Australia, the facts being sent to the Anthropological Institute by Mr. B. H. Purcell.

PATHOLOGICAL SOCIETY OF LONDON.

Dilatation and Rupture of Sigmoid Flexure without Obstruction.—Cyst of the Epididymis.—Transverse Hermaphroditism in an Adult Male.—Multiple Malignant Growths.—Exhibition of Specimens.

AN ordinary meeting of this society was held on Feb. 6th, Dr. PAVY, President, being in the chair.

Mr. JAMES BERRY showed a Sigmoid Flexure which had become enormously distended, ulcerated, and perforated as the result of simple chronic constipation. There was no stricture or other mechanical cause of obstruction. The cæcum, and ascending, transverse, and descending colon were not distended or hypertrophied. The sigmoid flexure formed a huge sac, eighteen inches in circumference at its widest part. It occupied most of the left side of the abdomen and reached upwards as high as the spleen and liver, to both of which it was attached by old adhesions. The patient was a man seventy-three years of age, who was admitted in a state of collapse into St. Bartholomew's Hospital under the care of Mr. Bruce Clarke. For many years he had suffered from habitual constipation, which had been absolute for the previous nine days. Vomiting had begun on the day before admission. Symptoms of perforation had developed a few hours before admission and death ensued soon after.—The PRESIDENT asked Mr. Berry to express his opinion as to the cause of the dilatation. He regarded it as purely passive, like the similar dilatation of the stomach. An atony of the sigmoid flexure, unaccompanied by obstruction, would lead to a loading of the bowel.—Dr. PYE-SMITH said that all physicians were familiar with cases such as that shown. A male patient aged about forty years was admitted into Guy's Hospital suffering from constipation. He developed symptoms suggestive of chronic stricture of the descending colon, the abdomen being distended and visible peristalsis present. The patient ultimately submitted to a left lumbar colotomy and afterwards gradually recovered. He returned to the hospital a year later suffering from chronic nephritis, from which he ultimately died; but he had passed motions by the natural channel for some time before death and the colotomy wound had almost closed. At the necropsy the large intestine was found to be quite healthy and no cause of obstruction could be found. He regarded atony of the gut as a quite sufficient explanation of these cases, the cause being a physiological rather than an anatomical or mechanical one.—Mr. BERRY, in reply, agreed that the main cause of the trouble lay in atony of the gut.

Mr. J. JACKSON CLARKE showed a specimen comprising a Testis, &c., with a Cyst as large as a pigeon's egg behind the Epididymis. The parts were removed after death from an elderly man who was admitted into St. Mary's Hospital under the care of Mr. Norton and transferred to a medical ward on account of tuberculosis of the lungs, from which he died. In life the cyst could be felt at the back of the right testis, from which it was easily separated by the fingers. The chief points of interest afforded by the specimen were: (1) that the above-mentioned cyst was clearly proved by dissection to be a dilated vas aberrans; (2) that it proved to be a spermatocele; and (3) that coexistent with this cyst of the vas aberrans was a small encysted hydrocele (spermatocele) of the common kind in the globus major.

Mr. EDGAR WILLETT showed a specimen illustrating Hermaphroditism, consisting of the pelvic organs of a man aged forty-four years, married, and whose wife had borne two children. There were an imperfect uterus and vagina in the pelvis lying between the layers of a broad ligament; the scrotum contained two well-formed tunicæ vaginalis, but no testes. These latter occupied the position of the ovaries on the posterior layer of the broad ligament. From each testis a set of vasa efferentia led to form the globus major of the epididymis, and from the globus minor a convoluted vas deferens led to the side of the vagina, but could not be accurately traced beyond. There was a solid Fallopian tube on each side, which led from the cornu of the uterus to the globus major of the epididymis. There was no cervix, the cavity of the uterus communicating directly with the vagina, which was constricted at its lower end, whence a bristle could be easily passed to the opening of the utriculus masculinus in the prostatic portion of the urethra. The prostate, though somewhat flattened, was well formed. There were no vesiculæ seminales. The specimen was referred either to the class of transverse hermaphroditism in the male, or to double or vertical hermaphroditism. Microscopical sections were shown of the testes, uterus, and prostate; in the testes the membrana propria of the tubes was very greatly thickened.—Dr. ORMEROD said that at the necropsy the pelvis appeared to be that of a woman; the patient died from cerebral hæmorrhage.—Mr. SHATTOCK observed that the specimen was almost identical with one shown by Mr. Stonham. He inquired whether there was a uterus masculinus as well as a well-formed uterus and vagina.—Mr. WILLETT, in reply, said that in the prostatic portion of the urethra there was what corresponded to a uterus masculinus, into which the vagina opened.

Mr. CECIL BEADLES showed specimens of Multiple Malignant Growths which occurred in the case of a man aged fifty years. There was no family history of malignant disease. In May, 1889, he was attacked by prickly heat, and he scratched the head off a small wart on his back. Twelve months afterwards the wart had grown again and it was removed by ligature. In December, 1890, when he was admitted into St. Bartholomew's Hospital, he had two small growths in the scalp, one in the left side of the neck and others in the leg, thigh, both groins, in the upper part of the gluteal region, near the anterior superior iliac spine, and in the left supra-scapular region. Later he was admitted into the Cancer Hospital, where he died. At the post-mortem examination other growths were found in the left lobe of the cerebellum, in both lungs, in the heart, in the parietal layer of the peritoneum, and in the pancreas, spleen, and right supra-renal body. The small growths in the subcutaneous tissue showed microscopically a definite areolar arrangement, bands of connective tissue, containing bloodvessels passing in from the periphery, surrounding groups of small cells in which were scattered other cell masses much larger and containing bodies like those recently exhibited as cell inclusions or protozoa. In the lungs the growth resembled round-celled sarcoma, and in the brain there was an almost total absence of alveolation. The growths contained no pigment, were markedly vascular, and the lymphatic glands had escaped infection.—Mr. SHATTOCK considered the growth to be an alveolar sarcoma, which in many sections was almost indistinguishable from carcinoma.—The specimens were referred to the Morbid Growths Committee.

The following card specimens were shown:—

Dr. H. G. TURNEY: Thrombosis of the Veins of the Cortex.

Mr. DUDLEY COOPER: Dermoid Tumours from Ovaries.

Mr. EDGAR WILLETT: Gastro-enterostomy for Carcinoma.

OTHER METROPOLITAN MEDICAL SOCIETIES.

HARVEIAN SOCIETY OF LONDON.—A meeting of this society was held on Thursday, Feb. 1st, Mr. GEORGE EASTES, President, being in the chair.—Mr. EASTES gave particulars of a case of Retained Pessary. The patient was a woman aged seventy-four years. The pessary was a hollow sphere of wood measuring two and a quarter inches in diameter. It had been *in situ* for months when one polar zone to which tape was attached became loose and came away (about a month before the patient was seen), leaving a circular aperture nearly an inch wide. Into this opening the uterus passed and, being strangulated therein, became tender and swollen, and gave off a very abundant foul-smelling discharge. With volsellum forceps passed up to the equator of the sphere, and then plunged into the wood, the pessary was by traction brought outside the vagina. With bone forceps Mr. Eastes then cracked the sphere on opposite sides from one pole to the other; whereupon the two separated hemispheres fell away from the enclosed uterus, which was almost gangrenous. Frequent antiseptic injections were subsequently employed, and rest in bed was enjoined; after some two or three weeks complete recovery ensued.—Mr. F. BOWREMAN JESSETT showed two specimens, one of Carcinoma Uteri and the other of Multiple Fibroid of the Uterus, which he had successfully removed per vaginam.—Dr. GOW read a paper on eight cases of Vaginal Hysterectomy for Cancer. After drawing attention to the fact that vaginal hysterectomy for cancer was not regarded with much favour in this country he proceeded to read notes on eight cases in which he had performed the operation. All the patients recovered from the operation and were able to return to their household duties, and five of them were known to be alive at the present time. Six of the patients were suffering from carcinoma of the cervical canal, one from carcinoma of the body of the uterus, and one from sarcoma of the body of the uterus. Of the eight patients two had died from recurrence within twelve months of the operation, one had been lost sight of, one had remained free for two years and eleven months, and one for twelve months and a half. The two last-mentioned patients were both well at the time of the reading of the paper. The three remaining patients had been operated on during the last twelve months and therefore sufficient time had not elapsed to allow conclusions to be drawn as to the ultimate result. He believed that the mortality was sufficiently low and the results sufficiently good to render the operation worthy of confidence in suitable cases. In discussing the technique of the operation he upheld the use of silk ligatures in preference to clamps as being the safer method of securing the broad ligaments. He did not think it was necessary to make any attempt to close the wound in the vaginal vault or to stitch the peritoneum to the vagina. After removal of the uterus a long strip of iodoform gauze should be introduced into the vagina and left undisturbed for from five to seven days. He advocated complete extirpation of the uterus in cases of cancer involving the whole length of the cervical canal, as well as in those of malignant disease of the uterine body. In cases of squamous-celled epithelioma of the vaginal portion or of carcinoma involving the lowest part only of the mucous membrane of the cervical canal he believed supra-vaginal amputation of the cervix to be indicated. Extensive operations were only justifiable when it appeared probable that all the disease could be removed.—Mr. F. BOWREMAN JESSETT congratulated Dr. Gow upon the success of his cases, and remarked, as more experience was gained, it would possibly be found that, while certain forms of malignant disease of the uterus could be removed with great and perhaps permanent benefit to the patient, in others, especially the sarcomatous, a rapidly growing form of carcinoma would be better left alone, as his experience tallied with the result of Dr. Gow's cases—viz., that these forms of malignant disease rapidly recurred. He (Mr. Jessett) was interested in the statistics given by Dr. Gow, but did not hear him refer to Dr. Lewers' case or his own cases (twelve in number), which had been published. He had now treated twenty cases with one death. He agreed with Dr. Gow that silk ligatures were preferable to catgut; if the ligatures applied to the ovarian arteries were cut short they became encysted in the same manner as the ligature round an ovarian pedicle, while the outer ligatures usually came away in from ten days to a fortnight, but sometimes longer. He was very interested in the case which had secondary deposits in the abdomen, causing pressure on and obstruction of the pylorus with accompanying dilatation of the stomach, as he had had a similar one, the dilatation commencing some months after the operation. This patient died, but unfortunately no necropsy was allowed. He always introduced a glass drainage-tube for the first twenty-four or forty-eight hours, and packed the vagina as described by Dr. Gow with iodoform gauze.—Dr. AMAND ROUTH thought there were stronger reasons given by Dr. John Williams than those given by Dr. Handfield-Jones for preferring supra-vaginal amputation of the cervix to complete hysterectomy in certain forms of cervical carcinoma. He believed the minor operation to be considerably less fatal, mainly owing to the fact that though Douglas's pouch was opened the more highly sensitive peritoneum in the utero-vesical pouch was not opened up. He believed that the quickest and safest method of performing complete hysterectomy was to antevert the fundus through the utero-vesical pouch before opening Douglas's pouch, so preventing any soiling of the peritoneum by foul discharges from the cervix. The ovarian arteries could then be ligatured from above. When the broad ligaments were thickened neither the partial nor complete operation was justifiable.—Dr. HERBERT SPENCER bore testimony to the excellence of the paper. He would only briefly allude to four points. One was that, in his opinion, catgut was preferable to silk for ligature of the broad ligament in vaginal operations; secondly, the removal of the ovaries in vaginal hysterectomy was not always necessary; thirdly, the diagnosis of cancer by the microscope was sometimes extremely difficult; and, fourthly, in considering the relative mortality of vaginal hysterectomy and supra-vaginal amputation (which statistics still showed to be in favour of the latter), he would remind the society that after hysterectomy small intestine often adhered to the scar and became rapidly involved when recurrence took place.—Dr. HERMAN agreed with Dr. Gow, both as to the diminished mortality of vaginal hysterectomy, as compared with that at the time of the publications to which he had alluded, and as to the advantages of hysterectomy over supra-vaginal amputation of the cervix for cases of cancer beginning in the cervical canal. For cancer beginning in the vaginal portion amputation of the cervix was enough.—Dr. HANDFIELD-JONES also took part in the discussion.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.—At a meeting of this society on Feb. 2nd Dr. TRAVERS presided, and the following specimens were shown:—Dr. CLEMOW: A case of Perforated Gastric Ulcer.—Mr. J. R. LUNN: Perforation of the Sigmoid Flexure, Perforation of the Vermiform Appendix, and Perforation of the Stomach by primary Cancer of Pancreas.—Mr. S. PAGET: Sarcoma of Femur.—Mr. ALBAN DORAN then read a paper on the Feeding of Patients after Abdominal Section. The importance of care in after-treatment was universally recognised, and diet was its most essential feature. The surgeon had to consider how shock might best be counteracted by dietetic means, how much the stomach would bear, and how far the peritoneum and intestines could be left undisturbed. In old and feeble patients and in others after prolonged and severe operations the starving system was dangerous. Beef-tea enemata were excellent in such cases, nutrient enemata counteracting shock and allowing the stomach to rest, whilst saving that organ from the dangerous irritability to which starvation subjected it. Barley-water was the best food after twenty-four hours, but meat broths should not be given until the bowels had acted, as they tended to concentrate the urine. Exclusive milk diet he condemned, but milk he regarded as beneficial in small quantities after the second or third day.—Mr. JESSETT, who preferred peptonised enemata and suppositories, and other gentlemen joined in the discussion.—Mr. LENTHAL CHEATLE read a paper on Complications in certain Diseases of the Middle Ear.

PROVINCIAL MEDICAL SOCIETIES.

BRIGHTON AND SUSSEX MEDICO-CHIRURGICAL SOCIETY.—A meeting of this society was held on Feb. 1st, Mr. CRESSWELL BABER in the chair.—Mr. TAYLOR showed some microscopic

sections to illustrate the Pathology and Operative Treatment of Glaucoma.—Dr. HADLEY read a paper on Fibroid Diseases of the Lungs. After a brief *résumé* of the history of the subject the cases were divided into tuberculous and non-tuberculous. A full clinical account of the non-tuberculous disease followed, its causation and antecedents, with a description of the morbid anatomy, and illustrated by specimens of lung and microscopic sections. Statistics were quoted from a collection of some fifty cases, and it was pointed out that much of the difference of opinion as to the tuberculous or non-tuberculous nature of the affection was due to the fact that some of those which began as non-tuberculous subsequently became infected with tubercle, and the immediate and marked change in the symptoms and course of the affection from that time was laid stress upon. Finally, after averages had been discussed (taken from the table of cases), a contrast was drawn between the tuberculous and non-tuberculous varieties; pointing out the differences in symptoms, seat of lesion, presence or absence of tubercle bacilli before death, and the differences in the appearances noted at the post-mortem after death.—A discussion followed in which the CHAIRMAN, Dr. CHAPLIN, Dr. HOLLIS, Mr. MORGAN, Dr. BLACK, Dr. MACKEY, Mr. TAYLOR, and Dr. RICHARDSON took part.

LIVERPOOL MEDICAL INSTITUTION.—A meeting of this society was held on Feb. 1st, Mr. CHAUNCY PUZEY being in the chair.—Dr. ABRAM showed a pathological specimen of Carcinoma of the Gall-bladder, with diffuse Infiltration of the Liver; also a specimen of Healing Typhoid Ulcers from a case without raised temperature, diarrhœa, or spots.—Dr. DAVIES then brought forward a Macerated Hydrocephalic Fœtus, one of twins. The second child was alive and healthy. The two children were lying in one amniotic sac and had one placenta between them, which, however, was lobulated.—Mr. LARKIN showed two cases he had operated on for Pyonephrosis. One was that of a woman twenty-four years of age, with a ten years' history, in whom the disease, though apparently tuberculous, seemed quite localised to the kidney. The kidney was completely removed, and now, after nine months, the patient was quite well. The second case was that of a man aged twenty-eight; here the abscesses in the kidney were scraped out and drained, and fifteen months after operation the patient was well and hearty, having gained two stones in weight.—Mr. ANDREW STEWART showed a boy aged nine years, who for the last three years had suffered from large Warty Patches on the Fingers, Elbows, Knees, and Palms of Hands. There was no tuberculous family history.—Dr. GRIMSDALE read notes of a case and showed a specimen of Cancer of the Cervix Uteri, coexisting with a three months' pregnancy, in a woman aged thirty-four. The uterus and its contents were removed through the vagina. The woman made a good recovery, and now, eight months after operation, remained quite well.—Dr. BRIGGS remarked that this case showed that a uterus of so considerable a size could be safely removed through the vagina.—Mr. MURRAY read a paper on the Treatment of Crooked Legs in Children. His remarks referred to children under four years of age, and he strongly advocated the immediate straightening of the crooked bones rather than the more gradual method by splints alone. In 1888 the late Mr. Rhinallt Pughe introduced this method at the Children's Infirmary, and the results proved highly satisfactory. In 1888 Mr. Pughe straightened thirty legs, and in 1893 Mr. Murray straightened 311, the total number since 1888 being 641. These figures included both knock-knees and bow-legs. His hands were the only osteoclast he had ever used. There had been no single mishap in the whole series of cases.—Mr. RAWDON had done a large number of subcutaneous osteotomies with excellent results, but he preferred to wait until the rickety tendency had ceased lest the deformity should relapse.—Mr. PARKER had forcibly straightened limbs with his hands for the last sixteen years when this method was practicable. At other times he had broken the limbs across his own knee, or had resorted to osteotomy. He never thought it necessary to remove a wedge-shaped piece of bone.—Mr. ROBERT JONES drew a distinction between the treatment of hospital and private patients. It was very rarely that private patients were willing to encourage osteoclasis or osteotomy where simpler methods would suffice. In cases of knock-knee the use of supports should be encouraged, which should run into the heel of the foot and not extend above the groin, and a moveable hinge at the knee should be deprecated. Mr. Jones advocated osteoclasis for bow-legs and anterior curves of the tibia.—Mr. THOMAS always performed osteoclasis for bow legs, and when the hands failed he used Thomas's osteoclast.

MANCHESTER PATHOLOGICAL SOCIETY.—A meeting of this society was held on Jan. 17th, Mr. F. A. SOUTHAM being in the chair.—Dr. WILLIAMSON gave the results of the microscopic and macroscopic examination of the Pancreas in fifteen consecutive cases. In seven cases the gland was normal; in two it was atrophied; in two there was atrophy with fatty degeneration; in two cirrhosis (not extensive); in one case most extensive cirrhosis with calculi existed; and in one case there were slight changes, but a cerebral tumour was also found after death.—Mr. THORBURN showed a specimen of Adenoma of the Soft Palate removed from the throat of a man aged twenty-seven. The growth consisted of a stroma of interlacing bundles of fibrous tissue, which in parts was of more embryonic type. Spreading through the stroma were extensive tracts of epithelial tissue, both with and without lumen. The general structure was of the composite type described in several reported cases, but the essential nature of these growths appeared to be doubtful.—Dr. ASHBY and Dr. WANSBOROUGH JONES showed (1) the Brain of a Child with Atrophy of one-half of the Cerebrum following an injury; (2) a specimen of Congenital Heart Disease.—Dr. HILL GRIFFITH mentioned a case of Orbital Tumour and showed microscopical preparations.—At the conclusion of the meeting numerous card specimens were exhibited.

PLYMOUTH MEDICAL SOCIETY.—At the meeting of this society held on Jan. 24th, Dr. ALDRIDGE being in the chair, Mr. WOOLLCOMBE showed a labourer aged fifty-four from whose left fore-arm he had excised a sausage-shaped Cyst of four months' growth. The specimen was about four inches long, with rounded extremities, and on incision a pink, turbid jelly exuded exhibiting a smooth and somewhat sacculated wall of greyish-blue like the interior of a vein. The contents gave the blood reaction with guaiac and ozonic ether and dissolved completely in liq. potassæ to a dark-brown limpid fluid; the microscope revealed crenated red corpuscles and a few mucus cells and fatty particles. It was considered to be a dilated vein cut off from its connexions at either end.—Mr. WOOLLCOMBE then read a paper entitled Club Foot, its Nature and Treatment, reviewing the subject under the heads of: (1) mode of origin; (2) different forms; and (3) their treatment. As to the first, for the congenital cases the theory of an intrauterine disorder of the cerebrospinal system leading to contractures or paralysis was upheld. The theory of maternal impressions was rejected. The cause of the acquired forms was then dealt with. Four primitive and four compound varieties of club-foot were described, and the severity and amount of deformity in each were stated to vary in inverse proportion to the age of the child when the lesion took place. Dealing with the question of treatment, the broad principles enunciated were the removal of deformity and the restoration of function. Stress was laid on the importance of the accoucheur undertaking the treatment of cases immediately after birth, more especially by directing intelligent and persevering manipulations on the part of the nurse and the mother. Malleable iron splints were recommended, with or without plaster bandages. In cases requiring tenotomy complete division of all resisting structures was urged, with prolonged after-treatment. In cases requiring osteoplasty Davy's operation was considered to be the best, and as adjuvants to other treatment massage, electricity, and suitable apparatus were recommended.—Several speakers joined in the discussion, Mr. LUCY especially remarking on the large preponderance of cases of club-foot in the male sex. He considered that the position of the feet at the extreme end of the vascular and nervous systems might explain these deformities.

Reviews and Notices of Books.

Methods of Practical Hygiene. By Professor K. B. LEHMANN, Würzburg. Translated by W. CROOKES, F.R.S. In Two Volumes. London: Kegan Paul, Trench, Trübner, and Co., Limited. 1893.

PROFESSOR LEHMANN will probably be remembered in English hygienic circles as having taken part both in the contribution and discussion of papers in the Chemical Section of the International Congress of Hygiene and Demography held in London in August, 1891. He published a work in the previous year on the Methodics of Hygiene, and the book before us, translated by Professor Crookes, F.R.S., is founded on a copy of the original German edition, revised, corrected,

and extended by the author in accordance with recent observations. In spite of this fact and of the notes appended by the translator, it is easy to comprehend that the ideas expressed in a work of this kind, written as it is by a German, must fail in many respects in their application to the requirements of this country. Thus our selection of food and the regulations in regard to its sale, as well as our systems of heating and ventilation and of food and drink production, are manifestly different; but, for all that, it is interesting and instructive to compare notes, to see how difficulties in the matter of State regulation are encountered, how sanitary problems are met, and how matters affecting the health of the community, and especially the classes engaged in unwholesome operations, are treated. In his preface Professor Crookes remarks that in hygienic regulations Germany is in advance of us in some respects, whilst in others she remains in the background. The Germans are less sensitive, for example, than we are on the question of sewer air, and they show some indifference to the precautions attending the disposal of the dead; but as far as sanitary enactments are concerned their law-makers are somewhat less active than ours in providing loopholes of escape for offenders. The treatment of these sections presents, therefore, an aspect of interest to the medical reader and to scientific and legal experts.

The work comprises two volumes, containing Parts I. and II., divided into sections. Volume I., containing the whole of Part I. and a portion of Part II., introduces the reader to chemico-physical methods (Section I.), in which the ordinary well-known laboratory processes involved in hygienic investigations are described, and in Section II. to bacteriological methods, in which methods of culture and microscopic examination in consonance with modern development are given in somewhat great detail. Under the heading "Reagents" in the first of these sections it is stated (and we may quote it as in some measure illustrative of what we have already said) that in regard to the selection of chemicals for analytical work "Merck of Darmstadt has lately manufactured preparations labelled '*pro analysi*,' the purity of which he guarantees." To the English reader such direction can be of little avail, besides which solutions "*pro analysi*," of guaranteed purity, may be easily procured in this country. Passing over the section on Bacteriological Methodics, which is very complete, and which is conspicuous for the valuable conspectus of the various species of organisms it contains, we come to Section III.—a short chapter on some indications in hygienic toxicological investigations, in a footnote to which the translator wisely adds a caution in respect to vivisectional experiments in England. The remainder of Vol. I. is then devoted to special investigations (Section III.), including the chemical, physical, and bacteriological examination of the air, the soil, and water, followed by Section IV., which deals with the determination of the elements of food substances, while Section V. refers to the use of preservatives in food. Among the methods prescribed for the detection of carbon monoxide in the air one is described which appeals to us as being of great delicacy and accuracy, and one, therefore, worth citing. It depends upon the formation of carboxyhæmoglobin (COHb) when the carbon-monoxide comes into contact with blood—an occurrence which is readily detected from the character of the spectrum which this compound presents. The rough method was simply to shake a large quantity of air with a little diluted blood, which was then examined spectroscopically. By this means 3 per cent. of carbonic oxide (a large proportion) could be detected with certainty; but, if after shaking the blood with the suspected air in the manner suggested a solution of tannin (albumen precipitant) is added, a sediment is obtained which is more or less brownish-red, in proportion to the carbonic oxide present. Ordinary blood under these circumstances is of a greyish-brown colour. After ten months the difference in colour is distinct, and it is stated that by this means ·023 of carbonic oxide in 1000 volumes has been demonstrated. The processes given for the examination of water differ in some essential respects from those adopted by English chemists. Thus the classical and accurate, though tedious, method of Frankland for the determination of organic carbon is not even mentioned, while no stress is laid on the "albuminoid process." Again, a modification of the "oxygen absorbed" method is described, which, however, judging from the account, cannot be said to admit of equal accuracy or delicacy as that employed here. In deciding upon the contamination of water from the amount of chlorine present no precautions are advised when the case of a water in close proximity to the sea is under consideration. The views expressed on the filtration treatment of water are fairly in accordance with those recently promulgated. In the section on the Determination of the Carbohydrates of Food, though the Fehling process is recommended, there is no mention of the convenient modification of it introduced by Dr. Pavy. Further on in Section V. the author expresses a very liberal view of the use of preservatives in food. On the whole, he regards their addition to food as relatively harmless, but he does not fail to point out, we are glad to note, that preservatives are frequently used in order to endow articles which have been in incipient decomposition for some time with the appearance of freshness and that this favours a series of frauds and tricks of trade, and in their train a number of menaces to the public health. But, while experiments are quoted and conclusions drawn in regard to the effects of salicylic acid, for instance, the question of probable impurities in it is overlooked. The injurious and alarming effects produced by certain specimens of salicylic acid, and especially the artificial article, have been shown to be due to the presence of an impurity—viz., creosotic acid.

The second volume opens with an important section (Section VI.) dealing with the examination of meat, in which its proportion of nutrient matter, its freshness, its unwholesomeness, and the search for parasites in it (animal and vegetable) are discussed. This is followed in the next section with a short sketch of various preparations of meat, such as sausages, tinned meat, salt meat, smoked meat, and dried fish. Then, with the exception of the articles on clothing, the hygienic examination of a dwelling-house, household appliances (in which the examination of metals is described), and related subjects, the remainder, over 200 pages, is devoted to a somewhat exhaustive account of the examination of common articles of food and beverages (milk, butter, flour, wine, &c.), including details and the description of analytical processes, such as are to be found in most text-books on the analysis of food products. Milk and its products have, as might be anticipated, the pre-eminence. Professor Lehmann's views on deciding the extent of the addition of water and the removal of cream are of great interest, while the mode of procedure which he prescribes in regard to the detection of watered milk might with advantage, we think, be brought to the notice of English legislators. The processes described are in fair agreement with those adopted in this country, although, oddly enough, we fail to find any reference to the convenient and accurate method recommended by the German chemists, Werner and Schmid, for the estimation of fat. Following the succeeding section on flour and bread there are a few paragraphs on fresh and dried vegetables, which conclude fittingly with some observations on the properties of mushrooms. There are no general characters, Professor Lehmann is of opinion, for the recognition of edible fungi—thus, e.g., the dreaded blue colouration of a broken part occurs also in certain wholesome species; an unpleasant smell of a fresh mushroom is no more proof of poisonous properties than a pleasant smell and taste indicate the contrary, &c. As regards their reputed food value, he goes on to

say that, in spite of the high percentage of nitrogen in their solids, they do not rank higher in nutritive value than the majority of vegetables. Somewhat terse, but to the point, are the articles that follow on sugar, honey, saccharin, tea, coffee, and cocoa. The succeeding section on beer, wines, and spirits is of limited interest and value, dealing with the continental methods of brewing and distilling, and consequently with continental products; this subject is shorn, therefore, of much material that might have been of a valuable practical character to the English reader. Suffice it to mention that, while the toxicity or deleteriousness of the fusel oils in spirits is admitted, no allusion is made to the observation of Allen, recorded in a paper read before the Society of Chemical Industry, that amongst the more important injurious constituents of raw spirits must be reckoned furfurol, which appears to be the result of a high temperature (perhaps burning) acting upon the albuminoids of the cereal. There is much debatable matter contained in the chapters on the heating and warming of dwellings and sanitary provisions for the same, but space forbids more than passing notice of the chief points. Under the former head, as might be expected, the open fire of coals is quite ignored, and the statement that "generally speaking, we wish to warm with radiant heat as little as possible" is worthy of remark; under the latter head we have failed to find any recommendation bearing on the adoption in suitable cases of the dry-earth system. A useful and novel addition is the contribution on the Examination of Household Appliances for Poisonous Substances &c., in which there is also included a list of coal-tar colours used in food and in articles of clothing. The author here courteously acknowledges the excellent treatise on this subject by Dr. Theodore Weyl, a review of which appeared in THE LANCET of April 22nd, 1893. Lastly, the remaining pages (33), in addition to supplying all important advances relating to the subject of the work under notice which have been made during the progress of the translation up to Jan. 1st, 1893, give also some valuable tables on the composition of foods and beverages, as well as other tables for the guidance of the analyst in the calculations involved in the analysis of food and drinks. The proof-sheets have evidently been very carefully read, for we have noted but two very trifling errors—viz., one on page 31, vol. i., in which "chlorine" should read "chloride," and on the page which should be 427 we read 247.

Professor Crookes' translation of Professor Lehmann's work is a valuable and important addition to the existing English literature relating to hygiene. It affords a really excellent lexicon on the subject, since the bibliographic references, English and German, are complete so far as the present position of the science admits, and are certainly more thorough than those of any previous work we have discussed. Although, for reasons already stated, exception might be taken to its worth as a practical guide, yet as a book of reference and as a work which may be safely consulted as to the relative position of hygiene in Germany and in this country it may be profitably assigned a place in the libraries of those who take an interest in practical hygiene in any of its branches.

Text-book of Nervous Diseases. By CHARLES L. DANA, A.M., M.D. New York: William Wood and Co. 1892.

THIS text-book of neurology is divided into three parts. The first part deals with a general description of the nervous system, its anatomy and diseases. This includes a description of the usual methods of diagnosis and of the causes and pathology of nervous diseases, and a chapter is devoted to general considerations of prevention and treatment by means of hygienic and other measures. The second part of the book is devoted to a description of the anatomy and diseases of the cerebro-spinal nerves, and in this there are three distinct parts, the first being devoted to general diseases affecting the cerebro-spinal nerves, the second to special diseases of the cranial nerves, and the third to diseases of the spinal nerves. The third main division deals with the spinal cord and its various diseased conditions, and includes sections treating of brain diseases and of functional conditions respectively.

It will be seen that the work aims at being very comprehensive, and indeed it is so, for it will be difficult to find any nervous disease to which a certain amount of attention has not been given. The author, however, in spite of a wide and far-reaching view over the field of neurology, can scarcely be said to show, in what we may call his pictorial reproduction of this field, that sense of perspective, and perception of due proportion of its various parts to one another, which are the essentials for a picture which shall appeal to the spectator. The book is, indeed, the work of one who has studied widely and deeply the subject of which he treats; who has derived, no doubt, unlimited pleasure from his studies in neurology; who has in himself the capacity of dealing accurately and successfully with the problems of diagnosis and perhaps of treatment which come before him in the course of his work; but who, in spite of this, perhaps even by reason of it, is not quite able to put himself in the place either of the student or of the neurologist, who regards the same problems from a somewhat different point of view. Yet, in spite of these drawbacks, the book is a valuable one—much more so, we should say, to the neurologist, who can read between the lines, than to the student: and the style in which it is written, if at times somewhat colloquial, is clear and concise. The illustrations, which are numerous, and many of them original, add to the value of what we believe may become a favourite text-book in America.

The Elements of Hypnotism: the Induction of Hypnosis, its Phenomena, its Dangers, and Value. By R. HARRY VINCENT. With Twenty Illustrations showing Experiments. London: Kegan Paul, Trench, Trübner, and Co. 1893.

IT may be doubted whether there was room for another manual on hypnotism. The literature of the subject has recently been extensive and fully commensurate with its importance, even as it appears to its devoted adherents; nor do we very clearly apprehend the motives of the author in presenting his work to the world. "This book," he informs us in the preface, "has been written in the endeavour to meet a want which has often been pointed out to me. Within its pages I have tried to give a simple account of the nature and effects of hypnotism, to show how the state is produced, and what it is." We should have thought that a similar claim might be put forth on behalf of any of the numerous existing manuals on the subject. Taking, however, the work on its merits, it presents a fairly full and adequate account of certain phases of the subject. The author has evidently been at considerable pains to ransack the literature of the subject, and has extended his explorations as far back even as St. Augustine and Solon. The exposition of the general phenomena of hynoptism and the views of the various schools and experimenters is full and lucid. The chapter on the Values of Hypnotism has, we are informed, been revised by Dr. Lloyd Tuckey, the author disclaiming any medical knowledge on his own account. We are informed in this chapter that hypnotism "has shown itself to be of enormous importance in medicine"; that it is only a "common misunderstanding that only nervous ailments are to be benefited"; that "medical hypnotists have been reporting cases of cure in organic disease which thoroughly overthrow the supposition that nervous disorders are the only ones affected by hypnotism." The author, though not a medical man, is kind enough to present his medical readers with a long list of serious organic diseases that have been "cured" by hypnotism. In this interesting catalogue we find cerebral hæmorrhage, hemiplegia, traumatic epilepsy, "diffuse rheumatic myelitis," &c. Then follows a much longer list of neuroses, neuralgias, rheumatic

affections &c. alleged to have been cured by hypnotism. In most cases no evidence is given, but some references to medical journals and various works are appended. We doubt whether Mr. Vincent has increased the value of his work by straying into regions where he can only be regarded as an amateur. The phenomena of hypnotism are a safe subject for the psychologist. The therapeutic applications of hypnotism are best reserved for thoroughly practised medical observers, and should be handled with great caution and reserve.

The Dwellings of the Poor and Weekly Wage-earners in and around Towns. By T. LOCKE WORTHINGTON, A.R.I.B.A. With an introduction by G. V. POORE, M.D., F.R.C.P. London: Swan Sonnenschein and Co. 1893.

THIS book contains a good summary of the several attempts which have been made by legislation to improve the dwellings of the industrial classes, together with a discussion of the methods adopted both at home and abroad in the erection of houses designed to place the home surroundings of working people in a more wholesome and sanitary condition. The author is not in favour of the block system of dwellings where such can be avoided, but is an advocate of the wider distribution of population, which he would have encouraged by legislation, and of the housing of the poorer classes in various types of carefully designed cottages and small houses in the suburbs adjoining district stations, and, where possible, in the towns themselves. He also suggests that old properties, instead of being demolished, might in certain cases be altered and adapted to modern requirements. Whatever is the plan followed, the author pleads for more ample space both in front and rear of all dwellings than has hitherto been provided for, and the laying out of more open spaces and recreation grounds in densely populated areas. Where the housing of very poor families is required, he would lay the burden of clearing an insanitary area partly on the ground landlord and partly on the ratepayers of the parish. The erection of model lodging-houses for poor single men and women is advocated, it having proved so successful in Glasgow and also in London. The prices charged for weekly tenements ought not to exceed one-seventh or one-tenth of the wage earned, and not, as at present, constitute one-fifth or one-fourth of the earnings of the occupant. We cannot but agree with most of the author's suggestions, and we trust that the work will meet with the attention it deserves; but it must be remembered that the throwing of more burdens upon urban and suburban ratepayers, and upon some landlords, is hardly a thing to be just now lightly contemplated or airily recommended.

The Dictionary of National Biography. Edited by SIDNEY LEE. Vol. XXXVII., Masquerier—Millyng. London: Smith, Elder, and Co. 1894.

THE biographies of an unusually large number of medical men who were celebrated in their day are included in this volume, as well as of those of two or three, at least, who have made good their claim to permanent places in all scientific records. There are notices of four Presidents of the Royal College of Physicians—viz., Richard Master, who was President in 1561, and was physician to Queen Elizabeth; Othowell Meverall, who was President from 1641 to 1644, and who seems to have escaped a Court appointment (which at that perturbed period of royal history would not have been an enviable post); Sir John Micklethwaite, who was President from 1676 to 1681, having previously been treasurer for ten years, and who was physician to Charles II.; and Sir Thomas Millington, who was President from 1696 until his death in 1704, and who was physician to William and Mary and Anne. Among other physicians who have held prominent positions we find notices of:—Sir Thomas de Mayerne, a contemporary of Meverall, who was physician to Charles I. and Charles II., and a very learned man, being especially well-read in the work of the classical leaders—("an innovator and a man of new ideas, and perhaps for that very reason over-anxious to prove his respect for what had long been generally received," as Dr. Norman Moore, the competent biographer of most of his eminent predecessors, describes him); of Richard Mead, who was censor of the Royal College of Physicians on three occasions and physician to George I. and George II.; of William G. Maton, who was treasurer of the same College from 1814 to 1820, and physician to the Duchess of Kent and to Her Majesty Queen Victoria when she was an infant; and of the Merrimans. The longest medical biography, and one of the longest in the volume, is that dealing with Richard Mead; but this eminent physician has so entirely become a part of the general history of the time in which he lived that it would be superfluous here to do more than say that the magnificence of the man receives adequate recognition. With regard to the Merrimans, medicine is a profession that is certainly more hereditary than many others, but the notices concerning this family display them as being, surely, unique in their devotion to the calling. There are ten descendants of Nathaniel Merriman mentioned by name, of whom nine followed the profession of medicine, and the tenth married her cousin, a physician, and duly became the mother of another physician.

The interest which attaches to the names of Midgley, Meryon, and Millingen is hardly medical, and, indeed, hardly their own, appertaining more properly to the persons with whom they were brought into contact. Robert Midgley, who graduated in medicine at Cambridge University in 1676, was for over thirty years licenser of the press, a post which then flourished, and which seems to have done uncommonly little harm despite the fulminations of the Areopagitica. He has been widely received as the author of "The Turkish Spy," the celebrated anonymous letters which appeared at the end of the seventeenth century and which dealt with many of the important political problems of Europe, but it seems more probable that he only used his official position in order to father the work, and that the true author was a Genoese named Marana. The suggestion that Midgley bought the copyright is clearly incorrect in the ordinary acceptation of the term, as the first Copyright Act (8 Anne, c. 19) was not in force till ten years after the issue of the last volumes of "The Turkish Spy." Charles Louis Meryon, who died only recently at the advanced age of ninety-four, was the eccentric Lady Hester Stanhope's companion during her seven years' wandering until her final settlement on Mount Sinai. He published the life of this extraordinary woman, who dispensed the patronage of William Pitt and died in the Lebanon as a semi-royal Bedouin chief, and it is chiefly on account of his associations with her that he will be remembered. Julius Michael Millingen accompanied Lord Byron to Missolonghi and attended him in his last illness. He then became a surgeon in the Greek army, was taken prisoner by the Turks, and turned the episode to such good purpose that he became court physician to five successive sultans. He was widely known as an archæologist and a Greek scholar and in medicine seems to have done practical work in the treatment of cholera and in advocating the use of Turkish baths. He must not be confounded with his uncle, John Gideon Millingen, the author of "Curiosities of Medical Experience," as well as of some highly coloured recollections of early republican France.

Mayow, Miller, and Maxwell are the three men of science dealt with in this volume, whose contributions to the knowledge of the world have not only been of undoubted general importance but have had special relation to the advancement of medical learning. Of the latter two we need say nothing, as the labours of William Allen Miller in spectroscopy and of Clerk Maxwell in electricity are so recent that it must be unnecessary to recall them to memory. Mayow, or Mayouwe, not being associated by name with any historic discovery or development in any science, has lapsed into

undeserved obscurity: for he was a physiologist of the first order. Two hundred years ago he described the mechanism of respiration perfectly, and theorised, on the whole, very correctly concerning its chemistry. He seems to have been endowed with something of Hunter's prophetic instinct and to have been able to perceive the difficulties which had to be surmounted before chemistry and physiology could be placed on a sound working basis, and also to have possessed the scientific imagination required to guess at the method of surmounting them. On the discovery of oxygen the work of Mayow was at once perceived to have been—if the Americanism may be pardoned—remarkably previous.

This dictionary has so firmly established itself, and justly so, as a first-class book of reference, in regard to which both editors and publishers have taken all conceivable pains—facts to which we have previously had the pleasure of alluding—that it may appear to be unseemly to carp at a trifle. But why, in the index, do some physicians figure with their medical titles and others without? It is a very small point in itself; but in a dictionary uniformity cannot be too closely observed.

The Student's Dictionary of Medicine and the Allied Sciences. By ALEXANDER DUANE, M.D., Assistant Surgeon to the New York Ophthalmic and Aural Institute, &c. London: Longmans, Green, and Co. Philadelphia: Lea Brothers and Co. 1894.

YET another medical dictionary. But why not? Development is the appanage of all mundane affairs, and creates fresh wants, which have to be met by fresh expedients. The elaboration of scientific research requires an extension of the means by which it may be promoted, and these means have to be made to accord with the exigencies of time, place, and opportunity. So that no apology need be given by either author or publisher for the issue of another medical dictionary.

A few lines only will be required to indicate the points peculiar to this work, as distinguished from others of the same class. The author in his preface states that he has been obliged, in order to bring the book within as moderate a compass as possible, to omit words which had become obsolete. Whether correct judgment has in every case been exercised in this matter is a point open to difference of opinion. Still, it has to be borne in mind that the book is intended for students, who, as a rule, do not need to cumber their memories with words which have gone out of use. Care has been taken to state and define the source from which medical terms are derived, and when those terms are of Greek derivation ordinary type has been employed. Another feature is noticeable in the introduction of suffixes—e.g., "-ad" and "-iasis"—in the alphabetical arrangement. The advantage of giving prefixes in the same way is not so evident. The utility of introducing a word in the singular form when it had already been given in the plural in a former page—as on pp. 346, 354—is not very apparent. On the other hand, the printing of chemical formulæ of gases and their compounds will be found of great use to students, as will be also the printing of elaborate tables of parts of the body and the diseases to which they are principally liable. The synoptical grouping of poisons and their antidotes, and of bacteria and the diseases to which they give rise, will, doubtless, prove of service to the rising generation of medical men, and, indeed, to others more advanced in the science of healing.

In thus cursorily glancing at certain points which have struck us on taking up this volume we do not pretend that it is altogether free from slight blemishes—indeed, of what literary work can this truly be said?—but these do not by any means militate against the distinct value of the book as a student's dictionary, and we cannot withhold our commendation of the evident care with which it has been compiled and the erudition displayed in its production.

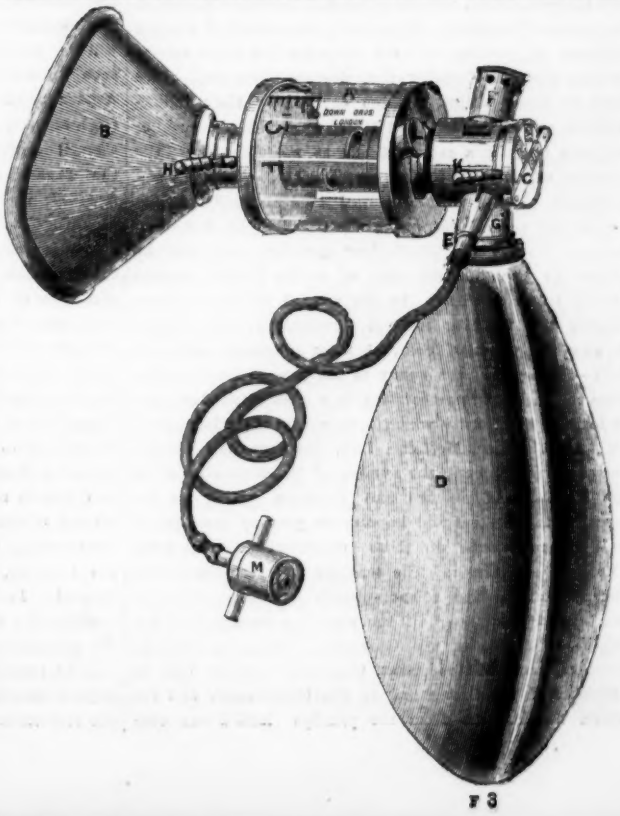
New Inventions.

A NEW NITROUS OXIDE GAS AND ETHER INHALER.

ETHER being now generally recognised as a useful anæsthetic, the chief thing wanting to secure its universal adoption is an inhaler by which it can be administered quickly and safely without any discomfort to the patient. The inhaler which I now introduce to notice has the following advantages: (1) it is extremely simple and portable; (2) the body being of glass, the amount of ether used is always visible; and (3) by giving gas first the struggling stage of anæsthesia is done away with and the nauseous odour of ether is not perceived by the patient.

The patient is got under in a very short time (from a minute and a half to three minutes) and the apparatus can be used as an ether inhaler, without gas if required, or as a gas apparatus alone for small operations. The engraving gives a good idea of the instrument, showing the glass body and the three-way stopcock, on which are fastened the ether bag and an indiarubber tube connected with the bottle of nitrous oxide gas. The patient, first of all, is allowed to breathe air, then gas is turned on, and when sufficiently insensible to smell ether is turned on—anæsthesia being continued with the mixture of gas and ether until complete insensibility is produced, when the gas is shut off and etherisation continued. The inhaler is well made and cannot get out of order. Messrs. Down Bros. are the wholesale agents. I may say that I have given the inhaler a thorough trial in over 400 cases, and have found it to answer all my expectations.

Leeds. SYDNEY RUMBOLL, F.R.C.S. Edin.



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THE LANCET.

LONDON: SATURDAY, FEBRUARY 10, 1894.

THE summary of the recommendations appended to the report of the Royal Commission on the proposed Teaching University for London, which we publish on p. 361 of the present issue of THE LANCET, will give our readers a full idea of the scope and value of these recommendations. As we anticipated last week, it will be at once seen that the recommendations have a very wide range so far as the higher education in London is concerned, while their medical aspect occupies only a very subordinate position. Very little consideration is given to the needs of the medical student in London, and the medical element, which was so prominently brought forward in the Gresham Charter, will be almost entirely swamped and will become a mere side-issue if these proposals for the new Teaching University be acted on. In brief, a large Senate of sixty-six members is to be appointed, of whom eleven only will be representatives of medicine. Of these, two are to be nominated by each of the Royal Colleges of Physicians and Surgeons and one by the Apothecaries' Society. Two will be elected by the graduates, and only four will be left for election by the Faculty of Medicine, which will practically consist of the teachers in our London medical schools. Four members will also be elected by the Academic Council, and four will represent the interests of University and King's Colleges, and one or more of these may happen to be teachers of medicine. Considering the number of medical students in London and the necessity for some reform in their mode of obtaining pass degrees which shall place them on terms similar to those enjoyed by their fellow-students at the provincial and Scotch universities, we cannot but look on such a representation as unsatisfactory. The greatest of changes in the examinations, curricula, and discipline of the future medical students will be discussed and carried out under the direction of a heterogeneous Senate, of which four members only will be elected by the academic staffs of all the London medical schools taken together. In the scheme of the Gresham Charter the teaching medical institutions were fully—it may perhaps have been, as their opponents said, too fully—represented, but surely in the present recommendations the medical representation is a most inadequate one. In forming a university which is to consist of six faculties—viz., Arts, Science, Medicine, Law, Theology, and Music—composed of teachers, the number of Senators elected by the Faculties of Science and Medicine, which are increasing in numbers and importance year by year, might well be in excess of those representing Arts, Law, Theology, and Music. The teachers and students in the general and medical sciences vastly outnumber those in the learned faculties. Of the sixty-five members of the Senate, exclusive of the Chancellor, twenty-two will be teachers, nine will represent Convocation, eight will be nominees of the Crown and of the Government, and the others will be sent from the principa institutions connected, sometimes a little remotely, with higher education in London. These last are to be welded into the new University, and may add to its dignity, efficiency, or finances, but of them only University and King's Colleges, the City and Guilds Institute, and the Royal College of Science have any claim to be considered as teaching bodies.

The Senate seems to us too unwieldy for practical work, and the difficulties of carrying on the scheme will tend to promote a routine discharge of duties, which are sure to fall chiefly into the hands of the sixteen members who are necessary to form a quorum. The supreme authority of such a Senate is the main difference between this scheme and that put forward by the Professorial association. But behind the authority of the Senate there will be found a governing "mayor of the palace" in the guise of an Academic Council. This will consist of fifteen members, presided over by the Vice-Chancellor. The fifteen members are to be elected exclusively by the faculties, and as the latter are almost entirely composed of recognised teachers they are sure to elect teachers as representatives on the Council, who will be thus divided: Arts, four; Science, four; Medicine, three; Law, two; Theology, one; Music, one. This Academic Council will elect four direct representatives, probably from its own body, on the Senate. It will recognise teachers and assign them to their respective faculties. It will determine the number and composition of the boards of studies in each faculty, appoint members upon any boards of studies, and delegate to the boards such functions as it may see fit. Further, it will determine the curricula of study and examination, settle the courses of study to be pursued at any school of the University, and arrange for the holding of the examinations for the internal students of the University. The faculties will be composed of the professors and teachers, with such demonstrators and assistants as are approved by the Academic Council, and these will elect direct representatives (eighteen) on the Senate and the whole of the Academic Council except the Vice-Chancellor. Four members on the Senate and three members on the Council will represent the Faculty of Medicine. The duties of the faculties and the boards of studies, which will be merely committees of the faculties, are simply deliberative. Convocation, which is to consist of its existing members, future graduates of three years' standing, and perhaps a small sprinkling of outside persons, will elect its own chairman, manage and record its own proceedings, and appoint a clerk. These duties it now performs. But instead of having any longer a right of veto on the question of the acceptance or rejection of a new Charter, Convocation will in future only be entitled to express its views before the Queen in Council upon any alteration of the statutes proposed by the Senate. It will have nine representatives on a Senate of sixty-six, instead of nine in thirty-eight, as at present, and it will have nothing to do with any of the proceedings of either the faculties, the boards of studies, or the Academic Council. In return it will exercise a new function in electing the Chancellor when a vacancy may arise. By the recommendations, therefore, the powers of Convocation will be greatly curtailed, the teachers will be given the general control of the University through the faculties, while the real executive will be the Academic Council. A large

and heterogeneous Senate will pose as the supreme head, but having delegated most of the real powers which should be attached to the chief authority of a university it will probably content itself with appointing a few university professors and teachers, with controlling the affairs and property of the University, and conferring degrees, diplomas, and certificates. Truly doth the old order change, and give place to the new. We wonder what the ancient supporters of the existing University, such as GROTE, BROUGHAM, and LOWE, would have thought of this transformation, and how those Fellows on the existing Senate, who adhere to its old traditions, if any such there be, will like to see the present University of London become a mere appendage to a large Teaching University controlled by teachers. London University, as at present constituted, will practically only remain as the Standing Board for the regulation of the examination of external students. The students will be divided into internal and external students; the former will be taught for at least three years in a college or school within the administrative county of London, including the county of the City of London, whilst the latter will proceed to a degree on an examination only. The internal students will be placed under the discipline and regulations of the Academic Council, whilst a Standing Board will be appointed by the Senate to superintend and regulate the examinations for the external students.

So far as is possible, "the final examinations will represent the same standard of knowledge, and will be identical, so far as identity is consistent with the educational interests of both classes of students." We congratulate the writer of this paragraph on the success of his diplomatic pen. He suggests what should be an obvious truism; he leaves to posterity its working solution. In the every day work of the University this identity of examinations will become one of the chief points of contention, and must inevitably lead to considerable friction. A proper combination between the University of London, the Royal Colleges of Physicians and Surgeons, and the Society of Apothecaries for the granting of pass medical degrees would do away with one-half of the existing examinations which the London medical student is now compelled to undergo in order to obtain a degree as well as diplomas to practise; but there are no practical suggestions in the report as to how this combination is to be carried out. The circumstances which have hitherto led to the failure of all negotiations for the consolidation of the overlapping examinations of these different bodies will not be readily overcome. The *deus ex machinâ* for starting the new University is a Statutory Commission, for we agree with the commissioners that it would be impossible to effect even the smallest of the suggested reforms by Charter. We anxiously wait for the action of Parliament to ascertain whether this *deus* will be forthcoming and whether London education in its higher phases is to be revolutionised. We fear that the scheme is too large except for the consideration of a far-seeing statesman, anxious for the establishment of the most comprehensive university in the world. To jump from an examination board, scattered teaching bodies, independent museums and laboratories, and professional corporations with legal rights to a concentration of all their separate ideas and several interests under one great body is, as we said of the professorial scheme, too ambitious a proceeding to be within the range of practical politics. We trust that we may be in error, but we think the probable destiny of the report is to remain for posterity an interesting record of what kind of university a commission comprising some of the most accomplished experts in education in Great Britain thinks is necessary for this great metropolis. When a Government seriously begins to consider that a real university ought to be constituted in the foremost city of the world and is thoroughly determined that London and Constantinople shall no longer be the only capitals in Europe destitute of a university for teaching, for research, and for the diffusion of the higher education, then the true importance and value of this report will be properly estimated.

NEW drugs and new methods of treatment are always with us. The growth of synthetic compounds, the developments of scientific instruments, are always leading to new hopes that we may be on the eve of a great discovery. The brilliant work of the last few years favours these hopes and the expectant attention of the medical profession finds an eager reflection in the increasing enthusiasm of the public concerning medical questions. New anæsthetics, new antipyretics, new hypnotics and new antiseptics come crowding around, and each in turn brings its element of hope that it will be found of such efficacy that former difficulties will disappear. The natural tendency is to press eagerly forward, to feel convinced that the future, if not perhaps the present, is guarding secrets which shall be revealed, and before which some at least of the diseases and discomforts of humanity may be relegated to the historic past. The poetic and prophetic instinct still dreams of a millennium, while the practical man of science tests and doubts. The public anxiety still longs for an absolutely safe anæsthetic, one which can be employed without the slightest shadow of risk and regardless of any disquieting doubts of the skill of the administrator, or the possible baneful influence of latent disease. The discomfort of fever is so real, the typical course so rare, that new antipyretics which promise to relieve without depression find ready acceptance. New hypnotics come and go, each with its hopeful forecast of being superior to those already known, each in turn aspiring to give peaceful, refreshing sleep, which shall be followed by no unpleasant after-effects, and yet in the minds of many thoughtful practitioners opium and its preparations still maintain their ground. What can be said of new antiseptics? Have we yet reached the ideal standard? Have we yet come to the last word? If we venture to reply in the negative it is not on account of any dissatisfaction with present methods, but partly because our antiseptic teachers have themselves so often revised and improved their methods, and partly because in questions of science the last word is never said; there is always, and there must always be, something beyond our present standard, something still to be sought after with patience and diligence, something still to hope for from the future. The progress of science is essentially slow. Brilliant flashes of light from time to time come to illumine the darkness; the danger lies only in mistaking for light that which calls itself light.

In no branch of science, perhaps, is the formation of a correct estimate more difficult than in the domain of therapeutics, since in this branch we have to rely so largely upon individual statements. Careful, accurate observation may go far towards forming a correct estimate in some cases, but not in all. Every practitioner has been temporarily gladdened by the improvement which so often follows a change of medicine; and every practitioner of experience has found cause to modify his opinions of the efficacy of certain drugs, and has, in all humility, had to confess that perhaps the attitude of expectancy, the desire to become well, may have been largely working in favour of the patient with the last change of medicine. Within certain limits it must be admitted that the natural tendency is to revert to the normal state, and this tendency is frequently in danger of being overlooked, while the credit of recovery is claimed for some special course of action. To form a correct therapeutic estimate of any line of treatment is far more difficult than is commonly supposed, and perhaps nothing is more misleading than the estimate which is formed by the patient himself. We have to contend with two distinct types of patient, both of whom confuse the clearness of our perceptions. The one, believing in nothing medical, falsely ascribes recovery to the strength of his constitution alone, and refuses to admit that any of the remedies administered have had any beneficial effect. This type of patient, though difficult to deal with, may yet be fairly trusted to conform to measures suggested for his guidance. The second type of patient maintains that he knows by personal experience, that he has learnt by his reading, the line of treatment which gives him most relief; but on inquiry it will frequently be found that his experience is based upon very imperfect and erroneous observations, and that his reading has been confined to the laudatory advertisements and pamphlets which teem in every paper and which crowd the druggist's counter. Upon such material he is prepared to face argument, or even ridicule, in defence of his pet nostrum, and in occasional exaggerated instances he is ready to defend the truth of the advertisements because he meets them everywhere and because they have never been authoritatively contradicted by the medical profession. This type of patient forms a more serious hindrance to therapeutic progress than the last. The agnostic may perhaps be convinced, but it is difficult indeed to shake a man's belief. It is far more likely that his faith, if deeply rooted, will influence others, and that the spread of error, if it be error, will be great. The probability of error in such therapeutic estimates cannot be overrated. The greater the mystery of the process, the greater the expense of the drug or treatment, the greater the apparent indifference of the medical profession to the new fad, the greater will be the mental enthusiasm of the man who feels he has hit upon something new, and the greater will be his desire to assert and to prove at all odds that his discovery has been a source of real gain.

At the conclusion of a leading article in *The Times* of Feb. 1st the curious statement is made that "it is for the buyer, after all, to form his own estimate." Surely, in medical matters, it is for the profession to speak its opinion in no uncertain tone, and to protect the intending buyer when he is so obviously bent upon squandering his money and is so apt to form a therapeutic estimate of no value to himself and of widespread danger to others.

THE relation between the occurrence of diphtheria in patients in isolation hospitals recovering from scarlet fever and the practice of overcrowding is so important and suggestive that we shall be excused for again referring to the subject in connexion with the reports of the medical superintendents of the hospitals of the Metropolitan Asylums Board. We have quoted the experience of Dr. F. F. CAIGER, Superintendent of the South-Western Hospital, to the effect that within three weeks of the time when under great pressure of cases the floor space per bed was reduced from 144 square feet to 105 no less than seven cases of diphtheria appeared for the first time in the history of the ward, as well as three other cases of sore-throat. The extra beds were quickly removed, the disease as quickly disappeared, and nine months later, at the time of the writing of the report, it had not reappeared. Dr. C. E. MATTHEWS, Superintendent of the Gore Farm Hospital, which was opened for the reception of convalescents from scarlet fever in July, 1892, makes a similar observation and indeed, submitted to the committee of management facts concerning the occurrence of diphtheria in scarlet fever cases tending to prove that in that hospital the incidence of the disease was related to the amount of cubic space allowed to the patients. His remarkable words are: "As soon as the cubic space per head could be effectively increased the disease vanished completely." From the tables given by the superintendents of the different hospitals, we gather that of 199 cases of diphtheria occurring in scarlet fever cases 90 were fatal, or a proportion of 45 per cent. There is a great difference in the mortality of such cases and of diphtheria generally in the different hospitals; but, as Dr. GAYTON, Superintendent of the North-Western Fever Hospital—who, by the way, has had an encouraging success in tracheotomies—observes, it is not possible to compare the results without knowing how far the cases themselves were comparable in character and severity.

It is an important point to ascertain whether the mortality in the hospitals is greater than that amongst cases treated outside. It is difficult to make sure of this, as there is no reliable information of the number of cases and of deaths outside the hospitals; the managers, however, and their medical officers agree in admitting that the mortality among hospital cases is greater than among those treated at home. The fact is remarkable and is not a little encouraging to those in private practice, who have often to contend with infectious diseases under very unfavourable circumstances and without the appliances and nurses available in hospitals. At the same time we must not conclude that this implies anything disparaging to the hospitals. Dr. GAYTON points out the large proportion of cases of patients who are admitted in a practically dying condition. This is unfair alike to the patients and to the hospitals, and the removal of these cases from the statistics reduces the mortality very materially.

The question of errors of diagnosis is always interesting in regard to this class of cases, because such errors involve risk to the patient of a grave infectious disease, and to the

practitioner who makes the mistake the risk of a more or less public exposure of his fallibility. It is undeniable that there are a certain number of doubtful cases about which the most expert practitioner cannot be confident; and in regard to these notification is not only not a duty, but is an error. The medical man who has such a doubtful case should withhold his notification till he is practically sure of his ground. It must, however, be admitted that the errors of diagnosis do not always occur in difficult cases. We must recognise what the managers and others point out—viz., the necessity of more education in the detection and diagnosis of infectious diseases. This is one of the subjects that cannot always be learned in the ordinary hospitals. Even in the infectious hospitals themselves, now so happily open for the benefit of medical students, the lesson of early and safe diagnosis can scarcely be learnt, for in them the cases are received with the disease in a developed form. The lesson is one that can be best learnt in the way of pupilage in general practice. The necessity for the lesson being better taught than it is appears almost weekly. Cases of disputed diagnosis appearing before police-courts are a discredit to the profession and ought scarcely ever to appear. Only gross and palpable errors should be the subject of dispute in such courts. The reports of the medical officers of the infectious hospitals show that there is still a considerable amount of error in diagnosis, an amount, in fact, that should be reduced. In the course of the year under notice—1892—753 patients were admitted into these hospitals and were found after admission not to be suffering from the diseases mentioned in the medical certificates on which they were taken there. This is an average of 4·4 per cent. The largest number of such errors was found in the cases admitted at the Eastern Hospital, amounting to 8·1 per cent. The managers suggest that the fact may be due to the number of cheap dispensaries worked by unqualified assistants in that part of London. It is instructive to cast the eye over Table IX., relating to details of miscellaneous diseases certified as one or other of the notifiable diseases, with the correction of diagnosis after admission, but it is only fair to remember that the cases hourly assume a more pronounced form, making diagnosis more sure. We can only give the principal errors under the chief heads. Under "scarlet fever" there were 295 errors, of which the greatest number turned out to be cases of measles (88), epidemic rose rash (33), and tonsillitis (17). Two cases of small-pox were certified as scarlet fever. There is one still more curious discovery of error in 39 cases certified as scarlet fever—viz., that nothing at all could be discovered amiss in the patients. Under certification of "diphtheria" the chief errors were tonsillitis, with or without complications, and, next to this, pharyngitis. Under the head of "enteric fever" the chief errors were tuberculosis and pneumonia. Of patients admitted to the small-pox hospitals on certificate 6·3 per cent. were found to be not suffering from small-pox. The early diagnosis of that disease is very important, and yet it is by no means always easy. The cases mistaken for it and sent to the small-pox hospital ships were chicken-pox (11), febricula (4), syphilis (2), erythema (1), tinea (1), lichen (1), herpes (1), purpura simplex (1), and *nil* (1). Those who know most of the difficulties of diagnosis will be most lenient in judging these errors; at the same time such errors must be seriously considered and education must be directed to their elimination.

Have the recent measures of notification and isolation tended to reduce the amount of infectious disease in London? In the case of small-pox it is difficult to doubt that they have been efficacious. A table on page 29 of these interesting statistical reports shows a marvellous reduction in the deaths from small-pox per million of the population during the last seven years as compared with any previous period in the Registrar-General's returns; but it would still be premature to say that, with the vaccination laws so little appreciated, we may not ere long see an outbreak of the disease that will strain all our existing accommodation. It is difficult to say whether the prevalence of scarlet fever and diphtheria has been reduced materially as yet by these measures; we must wait to see the further course of epidemics, and we may hope that with early and accurate diagnosis these plagues may be reduced, as small-pox has been, to a minimum. One point which is much urged by the medical superintendents—viz., the provision of isolation beds for doubtful cases—is of the utmost importance, and the suggestion should be at once carried out.

Annotations.

"Ne quid nimis."

THE SANITARY CONFERENCE OF PARIS.

THE Sanitary Conference of Paris was opened on the 7th inst. by M. Casimir-Perier, who in addition to being Foreign Minister is also Prime Minister of France, and on the adjournment of the sitting the delegates—some fifty in number—were entertained at a banquet in the Palace on the Quai d'Orsay. The sitting consisted largely of formal addresses by M. Casimir-Perier, by M. Barère, who replaced the Foreign Minister in the Presidential Chair, and by M. Proust, who gave a historical retrospect of all the preceding conferences and of their results. The Conference will hold its next full meeting on Tuesday next, but in the meantime a number of unofficial meetings between various groups of delegates have been summoned to discuss the terms of the French Programme. At the President's suggestion it was decided that the debates of the Conference and of its committees are to be regarded as private until the completion of the proceedings, it being felt that success in an ultimate agreement is more likely to be secured by this means than if an account which could in any way be regarded as authoritative were published as to matters which might be reconsidered as the Conference progresses. Already there are rumours that the delegates will be the subjects of much of that refined hospitality which the French nation knows so well how to display. Thus far there appears to be a very general desire to make the gathering a success from an international point of view.

THE METROPOLITAN HOSPITAL SUNDAY FUND.

UNDER the presidency of the Right Hon. G. R. Tyler, Lord Mayor, the Council of the Metropolitan Hospital Sunday Fund met at the Mansion House on Friday, Feb. 2nd, for the purpose of electing the committees and officers for the present year. The efficient manner in which the fund is managed yearly increases the confidence of the constituents, and this no doubt in a great measure accounted for the small

attendance at this meeting of the council. Four vacancies required to be filled for the year 1894, two on the Committee of Distribution and two on the General Purposes Committee. On the latter committee the place of the Rev. J. Kennedy, D.D., will be filled by the Rev. W. H. Harwood; the vacancy caused by the resignation of Lord Sandhurst remains for the present unfilled. The death of Mr. J. Derby Allcroft and the resignation of Alderman Sir James Whitehead, Bart., M.P., left two vacancies on the Committee of Distribution, one of which will be filled by Mr. James Cundy, and Alderman Sir David Evans, K.C.M.G., was offered, and has since accepted, the remaining seat. The honorary secretaries, Sir Edmund Hay Currie and Mr. Richard B. Martin, M.P., were re-elected for the ensuing year, as was also the secretary, Mr. H. N. Custance, whose services to the fund for the past twenty-one years were gracefully acknowledged by Sir Sidney H. Waterlow, Bart., the vice-president of the fund.

THE "NEW STREET DANGER."

STREET ACCIDENTS of a novel kind have recently been reported. As factors in their production electricity and coal gas have usually something to answer for. It appears that the "man in the street" must now accept two great and increasing probabilities. One of these is that the ground under his feet is saturated with coal gas, the other being that the same ground is traversed by electric light mains carrying strong currents. Considered apart neither of these circumstances need mean any serious risk to the public. It is probable and (by the recent accident at Bournemouth) perhaps proved that accidents due to underground electrical leakage, and this only, may occur upon the surface of the ground. Pending the publication of the report of the inquiry in this case the actual circumstances that led to the accident remain a matter of conjecture. Perhaps, however, it is safe to assume that the occurrence may be traced to one or other of two causes: (1) leakage from one conducting wire to some surface conductor well insulated from the surrounding ground; or (2) leakage from both conductors separated by some insulating material. In either case a current would pass through the body of any person or animal accidentally completing the circuit. Thus, supposing the insulated coverplate of a "manhole" to have become (through a combination of accidents, such as access of moisture, deficient insulation, and other circumstances) electrically connected with the light cable, the risk to anyone standing altogether off or altogether on the coverplate would be *nil*; but in stepping off or in stepping on it a current would pass from cable and coverplate through the person's body and the pavement, so completing a circuit to "earth." Accidents of such a nature could of course only occur with a "high-tension" current. The low-tension system, distributing, as it does, at a pressure of about 100 volts, would not pass an appreciable current through the sole of an ordinary boot or even through the nail-pierced hoof of a shod horse; but with a from 2000 to 5000 volt street main pressure the case is very different. Even 1000 volts would easily break down such a resistance. Though, as already stated, this kind of accident could not occur with a low voltage system, it would perhaps be hazardous to go so far as to say that "no accident could happen to a man laying hold of a low-tension system." The amount of truth in such a statement will depend upon the nature of the "contact": in other words, if a man's hands be dry and the surface contact small the resistance will be proportionately great; but with wet hands and an ample grasp the body resistance might be as low as 1000 ohms, and this would allow 100 milliampères to pass, a current which, if not dangerous to life, would be at least perilously unpleasant. Yet another form of possible accident may be adverted to. Supposing water to have accidentally gained access to a culvert containing a light cable, an electrical leakage might conceivably not only by electrolysis decompose the water into its component gases, but also supply a spark for their explosion. It is, however, when electrical leakage finds itself in the proximity of gas leakage that the greater danger lies. Electric light mains are often laid in culverts intercepted by "junction boxes." Gas mains have an evil reputation for not being gas-tight, and the escaped gas may percolate into these culverts and "junction boxes." If, therefore, in the presence of coal gas there be at the same time (through imperfect insulation of a light cable) "sparking" going on—if, in other words, electrical leakage meets coal gas leakage—there are at once present the conditions necessary for an explosion. As to safeguards and remedies, it is perhaps too late to ask gas companies to make their mains and junctions gas-tight; but it is not too late to ask the electrical engineer to have culverts and "junction boxes" made as far as possible impervious to coal gas, neither is it too late to ask him to pay yet greater attention to the insulation of his conducting wires. Above all, however, he may be fairly asked to adopt such a system of ventilation or inspection of existing culverts as will at least prevent an accumulation of coal gas within them.

THE LONDON WATER BILL.

OBJECTION has been taken by the officials of the London Water Companies to the London County Council's Water Bill, which proposes to give the Council powers which would enable it to acquire a water-supply beyond the limits of the county. The objectors contend that the Council would have no means of borrowing money for this purpose, and that the whole of any such expenditure would be thrown upon the county fund of one year and thus become payable by the present ratepayers, while the benefit would be that of the future generation. It was contended that the words of the notice ought to have been specific with regard to those important provisions, whereas, in regard to the financial part of the Bill, it merely contained the words "to amend and extend any of the provisions of the London Water Act, 1892." The examiner (Mr. Campion), in giving his decision, held that the objection was a substantial one and stated that he must report that the allegation had been sustained. The London water question will not in the end be affected by the decision, but it may possibly have some influence upon the Council in formulating its policy; as yet there has been no discussion by the Council on the report of the Royal Commission, but we presume that this will not be long delayed and that the intentions of the representative body of London will be shortly made known.

DISGRACEFUL CONDUCT AT A MEDICAL SCHOOL.

FROM time to time we are unwillingly reminded that even education, the accredited herald of civilisation, like that wisdom of which it is the expression, may cry aloud, but in vain, when it seeks to quell the disorders of human passion. The strifes of parties, whatever their purpose, have afforded repeated illustrations of this humiliating fact. The latest which occurs to us is probably one of the most despicable of its class; it is exemplified in an incident which occurred a few days ago at the university of Prague, and, we are ashamed to say, in the medical school. It appears that among the students attending the lectures of a certain professor there was one who sympathised with the Old Czech party. Unhappily for him, his fellow students had espoused the principles of the opposite political sect and were not over-scrupulous as to the means by which they chose to express their difference of opinion. Finding that vociferous hissing, hooting, and the like did not deter him

from attending to his duties, and that, on the contrary, his resolute quietude was more than equal to their own riotous offensiveness, they absolutely refused to attend the lectures if he were present. It would be difficult to find among the abuses which corrupt the social manners of our time a more disgraceful instance of petty tyranny. What renders it in our eyes doubly discreditable is the fact that those who are to blame in the matter are candidates for a medical qualification. We would remind them that this implies much more than even scientific knowledge and a Government stamp. The medical practitioner, whether in his relation to the general public, to whose need he ministers, or to his professional brethren, must, above all things, be strictly fair in his dealings. His honour and his prospect of success alike demand this. To live and let live is more especially the very essence of his fraternal duty, and we sincerely trust, therefore, that the profession in Prague will give to this fact a practical and emphatic assertion and will not suffer to pass unpunished the gross injustice manifest in such conduct as we have above described.

DEATH-RATE AMONG QUARRYMEN.

THE committee appointed to inquire into the special risks to life, limb, and health attendant upon working in open quarries have laid the result of their researches before the Home Secretary, and in so doing have made the following recommendations: (1) that houses should be provided wherein the workmen may take their meals in comfort and get their clothes dried; (2) that proper precaution should be taken to ensure the absolute cleanliness of barrack accommodation; (3) that instruction in plain cooking and (4) in ambulance work should be given to the workmen; (5) that means of recreation should be facilitated; and (6) that all managers should be able to show proof of practical experience in the working of a quarry for at least two years previously to their appointment. The committee have also pointed out that rules designed to prevent accidents and mitigate their effects can be drawn up—indeed, they have themselves drafted a special code—but they cannot be legally enforced without an alteration in the law, for the open quarry, calling for neither female nor child labour and requiring no machinery for its working, does not fall under the State definition of a factory or a workshop—an omission which they suggest should be remedied. The result of the investigations of Dr. William Ogle, late Superintendent of Statistics at the General Register Office, into the death-rate among quarrymen took the committee by surprise. Dr. Ogle said that the death-rate of stone and slate quarrymen, though lower than that of cabmen, bargemen and many trades both arduous and dexterous, is higher than that of the average male and exactly the same as that of the medical man. The chief factor in shortening the quarryman's life is, of course, phthisis and other pulmonary troubles, produced by the inhalation of dust.

ONE OF THE MEANS OF BETTERING THE CONDITIONS OF TOWN LIFE.

H.R.H. THE PRINCE OF WALES, who has in many ways manifested the great interest he takes in movements which have for their object the advancement of the comfort and material welfare of the people, has recently given another example of the kind by consenting to become the patron of the Metropolitan Public Gardens Association. This is a society the value of which to the denizens of London, and especially to those who for the most part have to spend their lives within its precincts, cannot well be exaggerated. The eleventh report of the association now lies before us, and the record which it gives of the valuable work done by its means is of the most cheering character. It is impossible within the limits at our disposal to go into much detail, but a few items may be given to afford an idea of the amount of good which has been effected by the operations of the society. During the past year seven gardens and one playground have been laid out and opened to the public, whilst labour is being employed on four other grounds, which it is anticipated will be ready for public use in the course of next year. During the eleven years in which the association has been in existence no less than fifty-nine gardens and twenty playgrounds, covering an aggregate area of ninety-four acres, have, at a cost of some £30,000, been added to the open spaces of the metropolis. Then, in addition to what has been done in the shape of affording public resting-places and grounds for recreation for the more juvenile portion of the community, it may be noted that by means of this society 175 closed London churchyards, which had become a nuisance, if not a source of danger to the health of the people residing in their vicinity, have in many cases been converted into pleasant and wholesome gardens. What more need be said to commend the operations of this society to the good wishes and the active benevolence of those who, whilst necessarily participating in the benefits secured by its endeavours, are in a position to afford it pecuniary aid?

IMPORTANT DECISIONS UNDER THE MEDICAL AND DENTISTS ACTS.

THE position of medical qualifications has been vindicated during the last few days in two somewhat unusual directions. Our readers will remember our announcing in August last the existence of a brand-new company for the manufacture of quasi-medical degrees. The name of the Council was the "General Council of Safe Medicine, Limited." The sort of "family likeness" between this title that of the General Medical Council and the inference are noteworthy. The objects of the company, as set forth in the memorandum of association, were to grant degrees, scholarships, &c., in the magnetic and botanic system of medicine. The highest diploma (*sic*) of the Council was one conferring the distinction of M.D.Bc., signifying the rank of Doctor of Botanic Medicine, in contradistinction to surgery and the practises (*sic*) of the allopathic and homœopathic schools of medicine. All this was done under the sheltering ægis of Somerset House and the Board of Trade, though nothing seemed more obvious than that medical degrees could not be granted by limited companies, and that the use of such titles as were contemplated amounted to a breach of the Medical Acts, which forbid the use of titles implying registration under them. The object of the promoters and of those who sought to have the new degrees has been quickly illustrated by the action of Mr. Joseph Steel, M.B.Bc., of Hetton-le-Hole, who has been charged at Houghton-le-Spring Police-court with an offence under the Medical Act. Up to eighteen months ago Mr. Steel was a miner; but under the limited company's memorandum he appeared as M.B.Bc. He proceeded to attend sick persons and to give certificates for sick pay. Still further, he gave notification of infectious diseases and certificates of death. Mr. Greenwell, who prosecuted, had no difficulty in showing that by all these methods he implied that he was a properly qualified man. The bench considered the case proved and fined the defendant £10, with £4 1s. as costs, or in default of payment six weeks' imprisonment. We cannot but have a kind of pity for this deluded man, and a feeling that he should have some claim on the authorities of Somerset House and the Board of Trade, who sanctioned the company in going such lengths in making the clear law of the land look ridiculous. Scarcely less interesting is the conviction of Hubert Durham Duff by the magistrates of Plymouth on the charge of unlawfully taking and using the addition or description—viz., "Dental Surgery"—not being registered under the Dentists Act of 1878 and not being then a duly qualified

medical practitioner. The defence was that he was acting only as the assistant of Mr. Passmore of Exeter, a registered dentist. An important element in the evidence was the card of the defendant: "Hubert Durham Duff," with the words in the left-hand corner of it: "The Dental Surgery, 195, Union-street." Mr. Duff was defended by Mr. Pearce who, in a strained argument, sought to show that the address in the left-hand corner of the card was a bare address and did not imply any assumption of titles. He pressed the point that his client was only an assistant, but he made little allusion to the distance between Exeter and Plymouth. The bench were unanimously of opinion that the section of the Act had been contravened, and they imposed a fine of £10 and costs—in all, of £10 11s. We congratulate the British Dental Association on their action in this matter and the success of their efforts to expose a discreditable practice of some dentists in employing unqualified assistants at a distance whom the public believe to be qualified. It is surprising that Mr. Passmore should defend such an arrangement, which the General Medical Council has condemned.

CAN A HOUSE BE LIBELLED?

A SOMEWHAT curious case of alleged libel has been recently heard by Mr. Justice Hawkins, in which the plaintiff sued the defendant, a medical man at Herne Bay, for writing to the sanitary inspector to the effect that a cottage, the property of the plaintiff, was unfit for human habitation. It was stated that antecedently to this letter being sent there had been a dispute as to a claim of the defendant for attending the plaintiff's family. At the hearing of the case it was argued that the libel was against the house and that it had led to the house being unoccupied. Mr. Justice Hawkins, however, pointed out that at the time the action was brought the house was still occupied and that consequently no damage of the kind as to which evidence was given had been sustained. Eventually the jury returned a verdict in favour of the defendant.

APPOINTMENT OF MEDICAL OFFICER OF HEALTH OF MANCHESTER.

ON a previous occasion we informed our readers that shortly after the resignation of Dr. Tatham a large and representative special committee was appointed, consisting, amongst others, of the whole of the medical members of the council, to advertise for a medical officer of health and to recommend a duly qualified gentleman for appointment to that office. This special committee have met several times and have been at considerable pains to select from the large number of applicants (some thirty-three in number) the candidate who would in their judgment be most suitable for the appointment. On Wednesday last the committee had before them six candidates, and after interviewing each of them they decided to recommend Dr. James Niven for appointment by the city council. The recommendation of the committee will in all probability be adopted by the council at their next meeting, so that Dr. Niven's election may be regarded as already assured. Dr. Niven brings with him credentials of a high order. He is a graduate in Arts and Medicine of the University of Cambridge, and, although the fact is modestly suppressed in his description contained in the Medical Directory, he achieved the honourable position of Eighth Wrangler on taking his degree at Cambridge. He was also a Fellow of Queen's College in that University. Since the year 1883 Dr. Niven has held the appointment of medical officer of health to the borough of Oldham, a position in which he has had abundant opportunity to qualify himself practically for the work which awaits him in the larger sphere of Manchester. As physician superintendent to the Westhulme Corporation Hospital he has had valuable opportunities of maintaining his familiarity with infectious diseases in their clinical aspects, and the experience thus gained he will, no doubt, turn to good account in connexion with his new appointment. Dr. Niven has done distinctly good work in Oldham. He has considerably improved the sanitary administration of the town and has done much to popularise the hospital treatment of the poor in isolation hospitals. He bears the character of being an able and zealous health officer, who knows his duty and does it to the best of his ability. We hope that on his assumption of his new office he will be cordially welcomed by the corporation and be loyally supported by the officials, with whom he must necessarily coöperate if the sanitary welfare of the city is to be maintained. We have confidence that Dr. Niven has both the ability and the desire to carry on the statistical and administrative work which has been inaugurated in Manchester by his predecessor, and we heartily wish him success in his new and important position as medical officer of health for the city of Manchester.

THE OUTBREAK OF ENTERITIS AT THE SOUTH-EASTERN FEVER HOSPITAL.

THERE has recently been a limited outbreak of enteritis at the Metropolitan Asylums Board's South-Eastern Hospital. It commenced on Jan. 20th, and altogether some forty persons have been attacked. The attacks have been confined exclusively to the staff, and therefore, we conclude, to adults—the patients, over 300 in number, having remained quite free from the disease. Fortunately no deaths have been recorded, and according to the latest report all those attacked are either well or convalescent. The limitation of the outbreak to the staff certainly seems to point to some article of food as having been the cause, and the fact that all the patients remained free while so many of the staff were attacked would seem to remove the illness from the category of infectious diseases. Apart from the common features that both outbreaks occurred within the walls of an institution, and that in both diarrhœa was present, there appears to be no resemblance between this outbreak and that which occurred at Greenwich Workhouse in the autumn of last year.

MENTAL OVERSTRAIN AND ITS TREATMENT.

MAN, said the ancient oracle of patient endurance, is born to trouble, and men in every age before and after his have doubtless in varied phrase asserted the same eternal truth. We need feel no surprise therefore that the pessimist in our own day has many followers, nor should we be too ready to reject as false his unpleasing revelations. These are often well founded on facts of daily observation and are wholesome inasmuch as their purpose and effect are curative. To the same class of writing belongs a paper published lately by Professor Glynn of Liverpool on excessive mental work and some of its consequences. The development, characters, frailties, and treatment of the nervous constitution are here discussed at some length and in a spirit which, if it cannot be described as encouraging, is, at all events, instructive. It is noticeable that our present system of school education, though judiciously criticised, is not regarded as being in a marked degree accountable for nervous overstrain in childhood. The tendency to this effect is considered to be in a great measure counteracted by the attention which is now given to physical training and by the mental elasticity natural to youth. The writer is disposed to view more seriously the consequences entailed by close and anxious application to duty in the case of teachers and older students. Passing to a wider field, he considers in like manner the effects of overpressure as felt by the adult population generally. It is in towns more particularly, as he observes, that the injurious influence due to this cause is most active; this, of course, is accounted for chiefly by a greater tension in the struggle for existence, associated with a desire, too easily

gratified, for exciting amusement and for stimulants of a more material kind. We have, indeed, proof of a steady and general development of nervous instability, as apparent in published records of nervous disease. Thus in 1845 the ratio of lunacy to the population of England was as 1 in 800 and in 1890 1 in 341. In Ireland between 1851 and 1891 it rose from 1 in 657 to 1 in 222. American tables tell the same tale. Suicide, another true index of nervous instability, has also shown during the same period a marked increase in frequency, especially in America and on the Continent. General paralysis of the insane has become a comparatively common disorder. It is necessary, doubtless, before accepting these data as reliable, to make a considerable allowance for a yearly improvement in accuracy of registration, so that we are by no means without justification in believing that the mental and moral stamina of our species, notwitstanding a temporary depression, will still assert themselves. We prefer to adopt this view. At the same time we would borrow from Professor Glynn's paper a hint that method and moderation in our conduct of life are essential if we would achieve the ultimate victory. Work—even hard work and brain work—is healthy if it is rightly gone about, if it be done willingly, if it is loved for its own sake and not alone from regard for the "goddess of getting on," and if it is done with due regard for physical well-being and relieved by the timely duties of rest and of moderate and natural, but not sensational, recreation.

CONDITION OF THE TEETH OF SCHOOL CHILDREN.

MR. DENISON PEDLEY has forwarded us a copy of his report to the London County Council on the results of his examination (on behalf of the British Dental Association) of 661 boys at the Industrial School, Feltham. This examination, like those conducted in the pauper schools at Hanwell, Sutton, and Southall, shows the prevalence of caries among the young, even when they are under favourable conditions for the maintenance of health, no less than three-fourths of the inmates having defective teeth. It is a very significant fact, Mr. Pedley tells us, that according to the statement of the medical officer 135 boys were admitted to the infirmary for dyspepsia alone during the year 1892. The results are recorded in tabular form, and some remarks and suggestions are appended. The six-year-old, or first, permanent molar appears from these statistics to be especially prone to disease and premature loss, as is also the experience in private practice. This is to some extent due to its being frequently mistaken for one of the temporary set, and therefore unworthy of attention, which is a grave error, frequently resulting in irremediable lesions of the permanent dental arch. Mr. Pedley strongly urges the advisability of the appointment of a dental surgeon to the school, and that cleanliness of the teeth by means of the tooth-brush and powder should be rigidly enforced, a recommendation in which we heartily concur.

THE WATER-SUPPLY OF CHELTENHAM.

AT the present time Cheltenham derives its water-supply partly from the head-waters of the Chelt, after storage and filtration, and partly from springs. These two sources combined are apparently insufficient for the needs of the population, and a further supply has had to be sought. It had been decided to obtain this from the river Severn, above Tewkesbury; but there has been considerable opposition to the scheme, and a deputation consisting of a large number of the medical men in Cheltenham has petitioned the sanitary authority to seek the additional supply from some source other than the Severn. We presume from this that other sources are available; and we imagine, if it has not already been done, that after this representation on the part of the medical profession these sources of supply will receive proper consideration. It is of course possible to obtain from a river, near its source, water equal in purity to spring or upland surface water, but after it has traversed some 100 miles or so of country, a large part of which may be cultivated and manured land, no such purity as that indicated can reasonably be hoped for; and so far as Cheltenham is concerned the position seems to resolve itself in this: what are the other supplies practicable? We are not in a position to give an answer to this question, but we would express a hope that, in deciding this somewhat momentous issue as to whether or no the supply shall be derived from the Severn, too much reliance may not be placed upon the results of chemical analysis, but that due regard may be given, not only to the bacteriological examination of the water, but also to the possible risks of specific contamination above the proposed intake. It is true that without large schemes of combination our smaller towns cannot derive their water from lakes—such, for instance, as Thirlmere or Loch Katrine; but, at the same time, it is clear—having regard to recent experiences both at home and abroad of the evil consequences which occasionally arise from using river water, even after filtration—that there is a growing tendency to regard river supplies as only to be adopted after most mature deliberation. Filtration, carefully carried out under skilled supervision as regards rate of flow, cleansing of filtering material &c., will, we know, do much; but, nevertheless, no stone should be left unturned to ensure, in so far as is reasonably possible, the natural purity of a water intended for drinking purposes. The town council of Cheltenham have in Dr. Garrett a medical officer of health peculiarly well versed in the subject of water-supplies, and he will, no doubt, after having considered all the bearings of the case and the arguments adduced by the petitioners, finally advise the town council in the interests of the public health of Cheltenham.

DERELICT CHILDHOOD.

FROM the fate of the anarchist Vaillant the public mind of France has turned to that of his infant daughter—"la petite Sidonie"—and has made it the text on which to weave a most opportune discussion on the "future of derelict childhood." Bad as is the outlook for the children of convict parents in our own country, it is even worse on the continent of Europe, where poverty is deeper and the struggle for existence harder. Indeed, a child does not need to be born in a criminal home in Latin countries to have the sternest conditions meted out to it. The streets of our own metropolis, to say nothing of those of European capitals generally, bear witness to this fact. There may be seen the itinerant Italian arab forming part of the stock-in-trade of the organ-grinder or showman, kidnapped from its Calabrian home (when not actually sold by its parents) and inured from its tenderest years to mendicancy, vice, and crime. Attempts to put down this iniquitous traffic in child-life have been many and persistent, but they have hitherto been baffled by the parents of the children themselves, ever ready to dispose of them for a few pounds even after philanthropic intervention has restored them to the parental roof. The sale of children, whether for the sulphur mines in Sicily or for the hardly less trying *métier* of "shepherd-boy" in the malarious Campagna, is a recognised proceeding in Italy, easily extended to the itinerant showman's purposes if the money inducement be large enough. Systematic effort is being made to stop this "white slave dealing," but the grinding poverty and the all-too burdensome taxation of the kingdom supply a motive for the traffic before which philanthropy retires discomfited. In France matters are more satisfactory. There we find beneficent associations, well organised and well provided with funds for the rescue of "derelict" or "unfortunate" childhood; above all, there is the "Union Française," of which M. Jules Simon is the president, which can point to years of good and prosperous work. Founded in

1888, it has taken in hand more than 2500 little ones of both sexes, rescued them from the maltreatment they were subjected to or the vicious, criminal atmosphere they inhaled, and according to a recent return has placed on the path of honest bread-winning no fewer than 685 of them, while 379 are under close surveillance, with every prospect of a satisfactory result. Never was there a time when such philanthropic organisations were more called for. "Just as the twig is bent the tree is inclined"; and if the social anarchist is to be deprived of one of his most potent auxiliaries the rescue of "derelict childhood" cannot be too widely extended or too vigilantly carried out.

THE DISSEMINATION OF SCARLET FEVER.

A TEA-DEALER at Croydon has recently been fined £3 and £1 10s. 6d. costs for carrying on his business while his hands were peeling as the result of scarlet fever. On Dec. 22nd, 1893, he was found by one of the inspectors serving in his shop in this condition and was cautioned, and he said he would see his medical attendant and get a certificate showing that he was in a fit condition to carry on his business; but a week later he was again visited and was found to be carrying it on in the same condition. We note with some satisfaction the infliction of this penalty, and we further observe the publication of the name and address of the defendant, which will probably lead to the infliction of a still greater penalty than that imposed by the magistrates.

THE INTERNATIONAL MEDICAL CONGRESS.

FROM Rome, under date the 4th inst., our own correspondent writes:—"The Central Committee continues to receive *adesioni* almost daily. Portugal, it is now certain, will be represented by twenty-eight physicians and surgeons, her university of Coimbra sending the most distinguished of its clinicians and teachers. The Chilian Government and its Council of Hygiène will have as conjoint delegate Dr. Del Rio. The Khedive deputes, as representative of Egypt, Hassan Pasha Mahmoud. A difficulty has arisen as to the participation of the Russian professors in the Congress, the sessional examinations occurring just at the time when the proceedings will be in full swing, and so diplomatic negotiations are at present in progress between the Italian Ambassador at St. Petersburg and the Government of the Czar with a view to obtain a postponement of the said examinations for two months. From information received at the Consulta it is more than probable that the negotiations will issue favourably for the intervention of the Russian delegates."

THE CONDITION OF CHRIST'S HOSPITAL.

ON Tuesday last Mr. Smallman, chairman of the Sanitary Committee of the City Commission of Sewers, reported to the Commission that plans and specifications for the temporary drainage of Christ's Hospital had been submitted by the authorities of the institution, and he asked the commission to refer these to their sanitary committee, with a view to a speedy reoccupation of the premises being permitted. The scheme put forward by the authorities of Christ's Hospital, he said, did not provide for the return of all the boys, but would give to each of them 30 per cent. more cubic space than he had previously enjoyed. Mr. Smallman was of opinion that the Commissioners should give all possible assistance to the authorities in their efforts to retain the school in its present site until its final removal to Horsham. While we have every sympathy with the governors of Christ's Hospital in the trouble that has fallen upon their institution, we earnestly hope that there will be no stretching of points in favour of any scheme whatever for the reoccupation of the premises—at any rate, as a boarding school—until their sanitary condition is undisputedly above reproach. Doubtless it would be an extremely pleasant and gratifying act to put a quick termination to the present unsatisfactory state of affairs. We can understand that the parents, whose children have been thrown upon their hands, are extremely anxious that an early date for the resumption of school-life should be fixed. A boy's education in these days is a serious matter, and a break in its course may most deeply prejudice his future. This being so, we can also understand—and letters in the daily press have shown it to be the case—that the parental anxiety will be made as much as possible to react upon the school authorities. But it is most sincerely to be hoped that no direct or indirect pressure will influence the City Commissioners to sanction any scheme by which risks to the health and life of the Blue-coat boys would be run. The thoroughly insanitary condition of Christ's Hospital that was lately revealed cannot be met by any tinkering processes.

LONDON STATISTICS.

THE London County Council has issued a useful volume of statistics. The work is divided under three main headings: (1) statistics which relate to the life of the people; (2) those which concern London finance; and (3) those which relate to the public services of London. The statistics have been culled from the reports of committees and of officers of the Council as well as from those published by the several local authorities of London. They necessarily form a somewhat heterogeneous collection. Under the first heading facts are given as to the population, alien emigration and immigration, movements of population, births, marriages, and deaths, and statistics (apparently taken from a report of the medical officer) showing distribution of diseases; other statistics under this heading relate to distribution of trades, workmen's trains, and wages paid to the Council's workmen, crime and police, and expenditure on education. The second section deals with local taxation, the finances of London generally, and improvements. The third division gives statistics relating to gas-supply, tramways, hackney carriages, fires, and markets. It will be convenient to Londoners to find this material in one volume; classification has of course been very difficult, but the best has been done, we think, to group allied subjects together. The cost of publication is, no doubt, heavy; but the business of the Council is to print large numbers of the volume and to make it as largely available as possible. The main cost is in the composition of the type, and the volume ought, therefore, never to be out of print.

THE NILE RESERVOIR QUESTION.

IT appears from a Reuter's telegram, dated Monday, Jan. 29th, that the head of the Egyptian Public Works Department favours dam reservoirs in the Nile Valley rather than Mr. Cope Whitehouse's scheme for impounding water in the Wady Raiyan basin, his reasons being the smaller cost and the larger area to be irrigated. Mr. Garstin considers the Assouan cataract site the best for making a gigantic dam, but admits that the resulting submergence of Philæ Temple is a drawback, which, however, could be surmounted by rebuilding the ruins on an adjoining island. The cost of the Assouan scheme is estimated at £4,750,000 and that of the Wady Raiyan basin at £5,000,000. It is difficult to understand how a comparatively trifling difference—about 5 per cent.—can be allowed to weigh in a work of such magnitude, especially when it is considered that the expenditure involved in the removal of the temple (£200,000) would wellnigh equalise the two sums. The larger area to be irrigated is now brought forward for the first time in support of the river bed dams, and it would be interesting to know what it really amounts to. The space available for cultivation in Upper Egypt can only be infinitesimal in comparison with Middle Egypt and

the Delta, and a dam on a very humble scale at Kalabsheh or Silsileh would amply suffice for the purpose at a very small expense. No mention whatever is made by Mr. Garstin of the sanitary aspect of the question, and yet from the point of view of national prosperity it is by far the most important in connexion with the rival schemes. In the Wady Raiyan basin the pure and wholesome water from the Abyssinian mountains would be impounded, whereas in the alternative project the supply would necessarily be drawn from the fever-stricken swamps of Central Africa. It is to be hoped that the International Commissioners about to meet in Cairo will inquire carefully into the matter.

SOUTH-WEST LONDON MEDICAL SOCIETY.

THE South-West London Medical Society made a happy start in securing Mr. Bryant for the delivery of their inaugural address, which we publish in this issue. The meeting was held on Thursday, Feb. 8th, at Bolingbroke House, Wandsworth Common, Mr. Thomas Symonds Howell, the first President, taking the chair. For the benefit of medical men desirous of becoming members we may state that names may be sent to the honorary secretary, Mr. T. A. I. Howell, at West-hill, Wandsworth, and that the subscription of 7*s.* 6*d.* for the current session may be paid to Mr. A. E. Dodson, at Earlsfield-road, Wandsworth.

"SAUSAGE" ROLLS.

PUBLIC confidence in that useful and popular comestible the sausage roll will be somewhat disturbed in view of the statements extracted from a witness in a case of alleged theft heard in the North London Police-court last week. The charge was brought against a boy by his employer, who, in answer to counsel acting on the boy's behalf, stated among other things that he had taught the boy how to make sausage rolls, the formula for the beef variety of which was: red ochre, pepper and salt, and soaked brown bread—a compound more suggestive of the "property" string of sausages brandished by the clown at Christmas in the pantomime than of an article of food. Though it must be admitted that this evidence was a little extraneous in relation to the particular charge, yet the revelations it brought forth should serve to open the eyes of those authorities who act in the interests of the public, and whose duty it is to see that all articles of food are "of the quality and nature demanded." It is true that none of the ingredients enumerated are of a poisonous nature—not even the red ochre, which is a finely powdered native oxide of iron—but there is the danger of unscrupulous manufacturers using colouring materials of a less innocent kind. It is impossible, however, to correctly call an article of the curious and interesting composition above described a sausage, and the law, therefore, provides a remedy. But the course pursued by those persons who, according to recent reports, made a raid upon the vendor's premises is wholly unjustifiable.

THE LAW RELATING TO VACCINATION.

A CASE of some interest has just been heard in the Court of Appeal, which makes clear a point in the law relating to vaccination. The appellant had been fined by the justices of Norfolk for not having his child aged one year and eight months vaccinated in the district in which the appellant resided. The public vaccinator only came once every six months, and the appellant, having been ordered to have his child vaccinated within fourteen days, regarded himself as being not obliged to comply with the order as the public vaccinator did not visit the district at the time the order was made. He could, however, have had his child vaccinated on payment of 1*s.* or 1*s.* 6*d.* by a neighbouring practitioner, but this he did not feel himself called upon to do. The justices held that he was in default and inflicted a fine, against which he now appealed. It was urged in the Court of Appeal that the appellant was a poor man and that his defence was a good one, and that, instead of the order to vaccinate be ng applied for, the appellant should under the circumstances have been proceeded against under another section which provided for a penalty, and that when the time approached for the public vaccinator to attend the order should have been obtained. The learned judges held that it was no hardship for a man who had disobeyed the law to be called upon to pay 1*s.* or 1*s.* 6*d.* for having the operation performed and dismissed the appeal with costs.

THE DIFFUSION OF SMALL-POX.

THE experience of the metropolis last week in the matter of small-pox was very similar to that of several weeks past, 12 fresh cases occurring with 1 death, and 81 cases remaining under treatment on Feb. 4th, of which 69 were on the river and 12 at Highgate Hospital. The admissions to hospital during the week numbered 17. In other places the most noteworthy occurrence was that of 65 cases in Birmingham, a considerable rise over the records of other recent weeks, 5 deaths being registered. There were 7 cases in West Ham, 19 in Bristol, 12 in Walsall, 5 each in Aston Manor and Oldham, and 12 in Bradford; and in several other towns attacks were notified from 1 to 4 in number, including 1 at Leicester. Thus Bristol maintains her share of small-pox, whilst Walsall records continue to show a decrease. The score of attacks in Nottingham during the previous week fell to 2.

THE HEALTH OF SIGNOR CRISPI.

DR. BACCELLI, Minister of Public Instruction in the Italian Government, has been in close attendance on the Prime Minister, and (according to official information just communicated to us) with the most satisfactory results. By his advice Signor Crispi avoided Rome until the pyrexia and the neurotic prostration induced by it have disappeared, and at his marine residence at Capo di Monte, near Naples, he is now in full convalescence. Among other symptoms a weakness of the eyes, amounting to extreme intolerance of light, has passed off, with the general debility which accompanies influenza, and in a few days it is anticipated that the eminent statesman will be fully equal to the multifarious duties inseparable from the reopening of Parliament after the serious crisis from which the Italian Kingdom seems happily to be emerging.

DANGEROUS ROADWAYS.

WE have repeatedly had occasion to notice the fact that among the many dangers, great and small, which beset our life the least are not those upon which we stumble in our daily walks. The local authorities of Wimbledon have quite lately been reminded in a most unpleasant manner of this fact and at the same time of their own shortcomings with regard to it, and it is a matter of further regret that the lives of two persons on one and the same day paid the forfeit due to neglect in maintaining the roadways of the district. Both of these persons, one of whom was an aged man, were found lying dead in ditches beside the public way, which was described as being in such a dangerous condition as to render it a veritable man-trap. Now that attention has been called to the matter we may doubtless look for the expenditure of some energy in the work of amendment. The district in question is under local management, so that any reasonable cost will doubtless be covered by rates. The cases quoted are suggestive, nevertheless, of possible difficulties which cannot be met in this way—such, for example, as those which belong to suburban high roads undergoing gradual absorption into a growing township and as yet equivalent to an uncared-for no-man's land. Efficient lighting and the erection of suitable temporary barriers

would go far to obviate the risk of an awkward fall in the dark in such a district. This much local boards may fairly be expected to do. For the rest, personal caution, we fear, can alone be relied on.

TRAMPS AND DIFFUSION OF SMALL-POX.

AN interesting account of the spread of small-pox by vagrants in the county of Lancashire during the last two years has been given by the medical officer of health of that county. The disease, after spreading in Yorkshire during the early part of 1892, was introduced by vagrants into the borough of Warrington, and thence distributed to Ashton-under-Lyne, Withington, Garstang, and many other districts. In 1892 93 small-pox was on seventeen occasions introduced into the borough by vagrants, while Warrington was infected thirteen times in a similar manner. In the whole of the administrative county in 1892, 612 cases of the disease broke out in twenty-eight districts, and in one-third of this number it was primarily introduced by tramps or frequenters of common lodging-houses. Up to the end of last year 1000 cases had occurred in seventy-six districts, and of the total districts attacked during the last two years vagrants appear to have introduced the disease in 30 per cent. Frequently the disease first appeared in common lodging-houses, and the other lodgers immediately left the house, thus spreading the disease. In some instances tramps suffering from small-pox have been found in public thoroughfares. It is urged that some further power of controlling vagrants is needed to prevent the distribution of small-pox throughout England.

THE SALE OF POISONS BY UNQUALIFIED PERSONS.

MANY are the ways in which individuals contrive to procure poisons, and their resources can only be provided against to a certain extent by registering the names of all persons entrusted to retail poisons or poisonous mixtures. It is scarcely necessary to point out that the provision of the Pharmacy Act is applicable not only to pharmacists but to all dealers. A dealer in photographic materials pleaded ignorance of this fact in the Liverpool county court last week. It appears that he had sold to a person, presumably for photographic purposes, two ounces of potassic cyanide—enough it is calculated to kill 192 people—and that he was not registered under the Act. An action was accordingly brought by the Pharmaceutical Society, which resulted in a judgment for £5 and costs against the dealer. It is very undesirable that such a powerful poison as potassic cyanide should be sold in this indiscriminate manner even by those who know the nature of the article with which they deal. Moreover, we are under the impression that there is no necessity now for a photographic apparatus dealer to stock or sell this poison since recent advances in photographic processes have led to the substitution of a safer and equally effective agent. The vigilance of the Pharmaceutical Society in endeavouring to stop the indiscriminate sale of poisons, abundant evidence of which is afforded by several recent cases, will be heartily approved.

ART IN DENTISTRY.

AN article appeared in a recent number of an American dental journal in which Dr. W. W. Allport urges the importance of the dentist who supplies the deficiency caused by the loss of teeth having an appreciation of physical harmony. If he does not possess this quality he will be a mechanical dentist only. His work may be useful for mastication, but the face will be apt to look "toothy." To produce this appearance the teeth need not of necessity be too large for the face; in fact, artificial teeth are usually smaller than were the natural ones, and yet they give the appearance alluded to above; it is usually the inharmonious colour rather than the size of the teeth that is at fault. The first, as well as the most lasting, impression made on the onlooker is the appearance of the teeth, whereas these should be so thoroughly in keeping with the rest of the face as to attract no more attention than any other feature. One of the requisites of the study and practice of this specialty is a talent for, and a knowledge of, art. This is perfectly true and is a subject which should receive far more attention than is generally devoted to it; but Dr. Allport omits to say that it is not always the dentist's fault that he sins against the æsthetic sense. Patients will only too frequently, in spite of all entreaty, insist upon having small, white, and regular artificial teeth when the indications are quite different, and so art is sacrificed. It may be said that the dentist should not allow himself to be led away from what he feels to be artistically right; but, after all, his first duty is do to the best he can for the individual patient.

DEATH OF PROFESSOR BILLROTH.

SINCE the death of Langenbeck surgery has not sustained a more serious loss than it has just experienced in the almost sudden death of Professor Theodor Billroth. Seven years ago he was dangerously ill with symptoms of cardiac degeneration, and his life was almost despaired of; but happily he regained a sufficient degree of health to enable him to resume his lectures and operations. He died at Abarria, on the Adriatic, in the morning of Tuesday last, the 6th inst., in his sixty-fifth year. Professor Billroth, who added such lustre to the great Vienna School, was known all over the world as one of the most scientific, and at the same time most practical, of surgeons. His contributions to surgical literature were extremely numerous, and in operative skill he had few equals. To-day we must be content to record the sorrow which, in common with the whole profession, we feel at the sad event, and leave to another occasion a more fitting notice of the great and accomplished surgeon and his work.

ROTTEN EGGS IN CONFECTIONERY.

IT would appear, according to a case heard before the magistrate presiding at the Thames Police-court, that rotten eggs are largely used in confectionery, for which purpose they are sold at the rate of twenty-five a penny. It is to be hoped that the authorities on learning these facts will take immediate steps to prevent the continuation of this most undesirable practice. Eggs, we take it, are, or should be, included in the same category as meat and other perishable articles of food which are subject to inspection and seizure under the provisions of the Public Health Act. Rotten eggs are quite as unwholesome as putrid meat—and, indeed, they may become very dangerous in view of the large proportion of albumen they contain, from which it is known that highly poisonous ptomaines have been formed. With such facts as these before us it is imperative that the public should be protected from confectionery into which putrid eggs find an entrance. To ward off this danger the only course is to appoint inspectors to keep a close watch upon the egg dealer.

LIGATURE OF THE INTERNAL ILIAC ARTERY.

THE ligation of this artery has been but seldom required and has not often been successfully performed; our readers will therefore be interested to know that the operation was performed recently at St. Thomas's Hospital. Mr. Pitts ligatured the right internal iliac artery by the "transperitoneal" or "diaperitoneal" method on Saturday last for a pulsating tumour of the buttock, which was probably aneurysmal. The operation was a difficult one and the artery was large and dilated. The pulsation in the tumour of the buttock has been arrested, and progress up to the time of going to press was very satisfactory. This is the first occasion on

which this method of operating has been applied for ligation of this artery.

THE annual Oration of the Hunterian Society will be delivered on Wednesday next, at 8 30 P.M., by Dr. J. Dundas Grant, in the theatre of the London Institution, Finsbury-circus. Dr. Grant will take as the subject of the Oration, "Aspects of Medical Life: John Hunter, Andrew Clark." The attendance of members of the profession will, we are informed, be welcomed. On the following Friday, the 16th inst., the Fellows and friends of the Society will dine together at Wood's Hotel, Furnival's-inn, when Mr. F. Gordon Brown, the President, will take the chair, supported amongst others by Mr. J. W. Hulke, F.R.S., the President of the Royal College of Surgeons, the Conservator of the Hunterian Museum, and Mr. T. Holmes.

DR. EMIL PFEIFFER, the permanent secretary of the German recurrent Congresses or Sessions of Domestic and State Medicine, writes to us from Wiesbaden informing us that in consequence of the postponement of the Eleventh International Medical Congress until April of this year difficulties have arisen in holding the next session of the German organisation. Consequently the organising committee and the select committee of the German Congresses have come to a unanimous decision to postpone their thirteenth session until January.

ON the evening of the 3rd inst. the University of Pavia lost the Emeritus Dean of its Medical Faculty, the octogenarian Dr. Giuseppe Dagna. The deceased gentleman long held the post of physician-in-chief at the civic hospital, and was particularly active in his solicitude for the sick poor. He had quite recently been nominated President of the Provincial Committee for the International Exposition of Hygiene and Medical Products to be opened on the 29th proximo in Rome.

DR. BARDUZZI, Professor of Dermosyphilopathy in the University of Siena, and Rector of that seat of learning, is about to start a new periodical for the discussion of academic science in general and the science of medicine in particular. He has already formed a staff of contributors, more than fifty in number, drawn from the professorial *personnel* of the chief universities of Italy.

MANY old St. George's Hospital men will learn with regret that on Monday next, Feb. 12th, Dr. W. H. Dickinson will go round the hospital wards for the last time in his capacity as Senior Physician on his retirement from the acting staff of the hospital.

A PORTRAIT of Sir Andrew Clark, the late President, by Mr. G. F. Watts, R.A., will be on view in the library of the Royal College of Physicians of London for a few days next week for the inspection of any Fellows who may desire to see it.

MR. SHERWOOD of Eastbourne, having had his name mentioned in notices of the trial, The Queen *v.* Sherrard, in certain daily papers, wishes it to be known that he is in no way connected with the case.

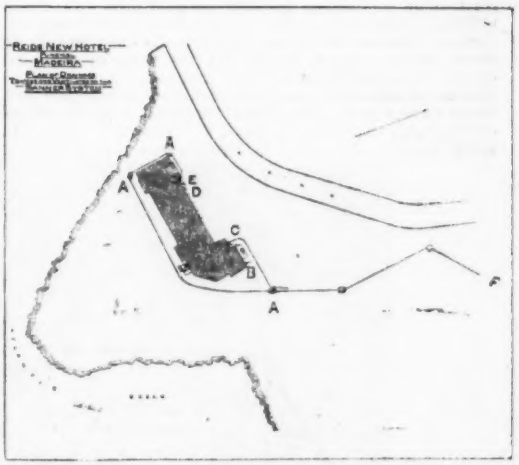
THE current issue of the *Berliner Klinische Wochenschrift* contains a notice of the late Professor A. Hirsch from the pen of his life-long friend and collaborator, Professor Virchow.

OWING to the outbreak of rabies which has occurred in Renfrewshire the muzzling order for dogs has been enforced.

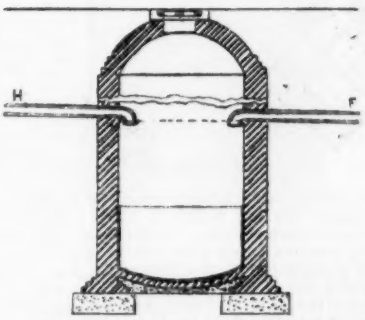
THE ISLAND OF MADEIRA.[1]

(*Concluded from page 231.*)

To the visitor to Madeira all the surroundings present an aspect of leisure and restfulness. It has been said that "the whole art of the physician consists in leading persons to rest." The author of the expression explains that, until he knew better, he looked upon rest as "doing nothing," and not, as he now deems it, a condition consisting of "not hindering anything." In Madeira the physical conditions of the body will rest if the mind will let them, and after a brief season the most perturbed and active mind will begin to assimilate itself to the reposeful nature of its surroundings. Even the soldiers on guard at the Governor's house have a look of leisure. The



Drainage Plan of the New Hotel.—A, Manholes. B, Fat trap. C, Soil pipe and ventilator carried to ridge of roof. D, Soil pipes as outlet ventilators. E, Manhole. O, Subsiding tank, 300 yards from the main building. F, Outlet to banana grove.



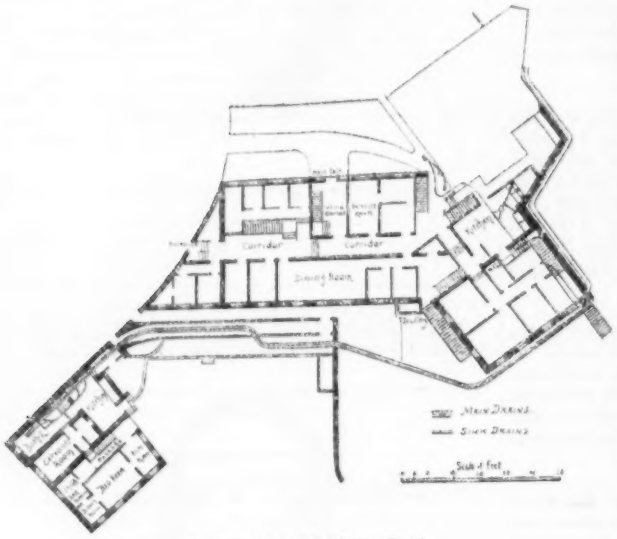
Section of Cesspool or Subsiding Tank.—H, From hotel. F, Effluent.

vendors of native merchandise will sit for hours at a stretch in front of a hotel window waiting for customers, who come but rarely. The *burriqueiro* or the *carro*-driver will wait his hirer's own time without a murmur, if it be for six hours together. The barber will draw his chair close up to his client, and, having seated himself, will leisurely proceed to cut his hair; the operation lasts about half an hour and affords a typical illustration of the prevailing spirit of leisure. The purchase of a glass of wine will ensure half an hour's conversation with the merchant. In the public gardens the same delightful quietude is present. Even the band joins

[1] The previous articles on this subject appeared in our issues of Jan. 6th, 13th, and 27th.

in the feeling, and the soft music which is discoursed harmonises with the contented appearance of the listeners. A theatre has been built, but more frequently than not there is no tenant, and consequently there are no performances. The billiard table is a source of relaxation, but the number of these in the island is limited. There are some lovely walks, and mountain excursions might with a little trouble and coöperation be organised more frequently. Boating, deep-sea fishing, visiting from house to house, concerts, and occasionally a ball will afford the visitor ample means of occupation. Amid the conditions presented in Madeira it is more than ever necessary to take with one the capacity for developing some "delights to pass away the time." Countless opportunities for occupation will be given to the observant visitor.

The wine for which Madeira is celebrated is exported in large quantities to Europe and the continent of America, its total value amounting in 1892 to £146,009. Excluding Germany and taking together all the other countries to which wine has been exported from Madeira, the quantity sent to Great Britain exceeds by £20,231 the value of the total exported from the island to other countries. So long ago as 1588 Lopes expressed his opinion that the wine was the "best in the world, whereof they carry abroad great stores into divers countries, especially into England." There is no reason to doubt that the wine grown in Madeira now is as good as it



Drainage Plan of the Carmo Hotel.

was then, and in Consul Keene's report we are informed that the vintages for the last twenty or thirty years have been as good as those of former times. The tariff for wines and spirits, though high as compared with that of England, cannot be described as exorbitant. Comparing the cost of living in Madeira with that of America, the advantage will be found to be greatly in favour of Madeira. In American hotels the inclusive tariff may vary from five to ten dollars a day, and the wines are double or treble what they should be—really poor Médoc costing two and three dollars a bottle. English bottled beer, which in Madeira can be purchased for about 1*s*, in America may cost nearer a dollar than half-a-dollar a bottle.

The questions of most importance to visitors are, however, those which deal with the sanitation and public health of the island. It is necessary to know whether any conditions exist which in themselves would prevent visitors from seeking its shores in search of health, and whether the sanitary authorities, by doing everything to render the island above suspicion from a sanitary aspect, can induce a sense of security in the minds of the public they are desirous of attracting. The answer will be found in considering the condition of the public markets, the water-supply, and the drainage system, as well as those measures which deal with the protection of the populace from outbursts of preventable or epidemic diseases. The increasing number of health resorts which can guarantee these precautions renders, we are glad to say, those in search of health comparatively independent of any particular locality. Nature may be prodigal of her loveliness and splendour, and, as in Madeira, the climate may be equable, the winds gentle, and the flowers may bloom perennially. Such delights may offer every temptation to the weary, and charm the sick with the prospect of comfort and repose; but inquiry must still be made as to the arrangements which have been undertaken to provide for the more essential needs of the visitor, who after all does not live by that only which enters through the gateways of his senses.

The people among whom the incomers are to dwell, their habits and modes of living, and the interest manifested in the general welfare of the populace by the municipality set in authority are important topics to intending residents. It is with this in view, having given favourable accounts of those other qualities on account of which the island of Madeira maintains its claims as a health resort for Englishmen, that we now pass on to consider some of the phases of the public health and sanitation of the island.

In order to ascertain the habits and conditions of the lower classes of Madeira we undertook a tour of the more densely populated and poorer districts of the town of Funchal. One or two of its streets would strike the visitor as being narrow and somewhat crowded, and those situated near the sea are somewhat odorous, especially in the neighbourhood of the vendors of perishable merchandise. In general, however, the streets were unimpeachable from a sanitary point of view. Here and there, seated on the "kidney stones" which form the paving, the street cleaner was at work busily digging out with a small sharp-pointed instrument the weeds and grass which had grown up between the interstices of the cobbles. Another was engaged in sweeping up the dry, brown leaves which had just fallen from the trees overhead. In the whole course of our expedition, in no case did we find any trace of those filthy conditions of existence which shock the visitor to the slums of London. The poor had not that lean and hungry look, nor did they present the abject appearance of misery which is so constantly met with in the darker corners of our cities and large towns. On entering some of these humble dwellings we observed that they were whitewashed, in most instances as regarded the outside as well as within. A careful scrutiny revealed nothing which was incompatible with the health and cleanliness of the inhabitants living in these dwellings, upon which the sun shone gaily, brightening the lives of their occupants and serving, it may be, as an effective agent in the destruction of germs of disease which might otherwise have found there a temporary resting place.

An inspection of the Fruit Market will repay the visitor from a culinary, a botanical, and also from a sanitary point of view. It is wide and airy, abounding with a variety of fruits pleasing to the eye and wholesome. An aspect of cleanliness and brightness gladdens the visitor as he passes from stall to stall, partaking perhaps of the fruit so genially offered to him by the merchants. We are glad to be able, through the kindness of Mr. Maurice Faber, to portray in our illustration a portion of the market, which is typical of its general cleanliness and beauty. Not only does the place look clean and bright, but the hearty-looking people doing business within it manifest in their appearance and demeanour the same qualities.

The Fish Market, too, is well worthy of a visit. It also has a clean and wholesome appearance, and the strange shapes and brilliant hues of the fish exhibited on the stalls will greatly interest the spectator. Here are to be seen splendid specimens of the brassy-eyed beryx clad in hues of silver, scarlet, rose, and purple, the yellow-painted dog fish and the beautiful lampris lauta, the John Dory, the tunny in large assortments, and the red mullet. In respect of cleanliness and methodical scouring and flushing the Fish Market would serve as a miniature model of what our Billingsgate Market in London ought to be if weather and other circumstances permitted.

The pleasing aspect of all above the ground suggested the question whether the drainage beneath the surface could be viewed with similarly satisfactory results. To ascertain this we endeavoured to obtain from the Board of Works office an opportunity of seeing the official plan of the mode and principles upon which the drainage of the town of Funchal had been carried out, but upon inquiry it was found, much to our surprise, that no such plan existed. One of the first letters of the alphabet of sanitary science is to have a plan of the drainage open to the inspection of everybody. This invariably does more to increase the celebrity of a health resort than all the specious praise and descriptions which can be bestowed upon it. Such negligence on the part of the municipal authorities is in striking contrast to the course adopted in the entrance-halls of the more important English hotels in Funchal, where, exposed to the view of every visitor, a large tracing of the drainage system is suspended. Photographs of these plans have been secured, and we reproduce them as indicative of what should be done in every quinta in Madeira. English visitors who contemplate a period of residence there will do well to satisfy themselves on this point before concluding any agreement. The plans should be signed by some responsible authority. In the report of a Commission on Sanitation with regard to House-letting published in THE LANCET of Aug. 20th, 1892, it was suggested that every sanitary authority should issue a code of by-laws setting forth its standard of sanitary excellence and should have a plan of the drainage of each house in its possession open to inspection and reference. The certificates of sanitary excellence should be renewed annually. It is right, however, to mention that the courteous official to whom we addressed our request kindly offered to supply us with an ordinary skeleton map of Funchal and a Portuguese sanitary officer to conduct us over the town and point out the drains. Further, he volunteered to provide a red pencil by which we might be able to construct a plan of the drainage; but this undertaking (which we commend to the notice of the Portuguese Government) considerations of time compelled us to refuse. We may note, however, that some of the best informed among the residents had previously described the condition of the drainage as "hopeless." We ascertained that some new drainage schemes had been discussed from time to time, but without any practical issue. Many of the quintas in which the English people have taken up their abode are, like the hotels which we have mentioned, drained on approved principles. The appointment of a medical officer of health and of an expert sanitary inspector to certify to the suitability of the drainage of the quintas and of the town would be a great acquisition to Madeira; but it is difficult to see how this is to be urged upon a municipality which does not possess a plan of the drainage of their town. Should the authorities fail in a matter so vital to their own interests, and should they not speedily devise some alteration of this state of affairs, they need manifest no surprise when the day of retribution comes.

The existence of a crowded cemetery on the slope of an acclivity leading down to the most densely populated portion of the town is also an offence against good sanitary law. Almost every intelligent person with whom we conversed in the island urged the necessity of prompt measures in regard to its closure. At present the cemetery is totally inadequate to the requirements of the population, and is, on the site which it at present occupies, nothing less than a storehouse of pent-up evil.

Some of the mountains in the centre of the island rise to a height of over 6000 feet above the sea level, and their tops intercept a supply of pure water distilled from the clouds. There is thus provided a perennial supply of water for both coasts of the island. Madeira is furrowed everywhere by many ravines. From springs situated in the deep recesses of the ravines, mountain rills of bright water wind their way to the margin of the island, here and there falling in pleasant cascades over many a pointed rock before reaching the Atlantic. The illustration on page 358 shows the source of the main water-supply of Funchal as it falls in cascades over the cliffs at Rabaçal, broken up into spray as it takes its first leap after issuing forth from the springs in the mountain side. At this spot the scenery is magnificent, and the climb before reaching it is exhilarating to a marked degree. The scene excites in the spectator a perpetual memory of luxuriant foliage, gigantic heaths, and stately pines. Along these ravines, at points by no means few or far between, but especially in spots where

> "The blue-eyed violet weeps upon some sloping bank,
> While the young sun dries up her tears,"

the air is perfumed with flowers exhaling their aromatic breath. The solitude of these recesses is broken only by the

The Fruit Market at Funchal

songs of birds, an accompaniment adapted to the murmuring of the babbling rills

"That shun the light,
Stealing soft music on the ear of night,"

the whole forms a harmonious combination of what Carlyle calls "the beautifullest blent friendly with the usefullest."

The source of the water-supply is undoubtedly above the shadow of suspicion. Before the stream has reached the ocean, or before it has been supplied to the populace, it has here and there been tapped and the water led along the mountain sides through artificial channels cut and carved at the cost of enormous outlay of skill, industry, and money. These channels are not everywhere covered in, and the water conveyed in them may, before it has reached the ocean, have passed by many a hamlet, watered many a flower-garden, and been used for irrigating many a banana grove or plot of land waving thick with the sugar-cane or covered with trailing vines; and thus as it descends from the mountain tops to the margin of the island it has had many facilities of becoming changed from a cloud-derived distillate into a liquid which, in the mildest sense, is not above suspicion. Dirty utensils may have been dipped into it by the inhabitants, it may have been used by the washerwomen for cleaning purposes, or it may have supplied the daily bath and have been returned to the stream at some point below that from which it had been in the first instance taken. Groups of energetic washerwomen are everywhere seen industriously plying their occupation in accessible portions of these rills, and one of the scenes which attracts the attention of visitors on their first view of the deep and beautiful ravines is the quantity and whiteness of the linen exposed to dry on the stones which form their rocky beds. If it be the case, as was suggested to us, that the Portuguese who dwell on the banks of these ribeiras prefer to drink their water a little flavoured there is little doubt that before the stream has reached the lower levels the water has attained a degree of flavour which would satisfy the palate of even the most fastidious among them.

While little objection can be taken to this in the lower reaches of the ribeiras it is to be feared that a similar thing is being done in the exposed portions of the stream in the higher acclivities. There is no saying how frequently or in what variety of ways the water may have been used prior to reaching a particular individual. At points throughout the town some beautifully carved fountains have been erected, but the fluid they distribute is of such a suspicious character that it is very questionable whether they are to the inhabitants an unmixed good. The water in these street fountains was described to us as constituting a source of danger to the community, and this seems to be the opinion of a large majority of the people.

The main supply of water is not derived from these fountains or from the rills; a copious spring of water gushes from beneath the walls of the Governor's house and runs to waste into a large trough. Little special attention has been bestowed even upon this supply in order to ensure its continued purity or to guarantee that in the case of an outbreak of cholera it would not become a source of great danger. Notwithstanding its apparent excellence it is liable to contamination from the surface drainage during heavy rains on its way through the town, and it may also be polluted by careless handling. The spring, indeed, affords an example of one of the purest water-supplies of the world, but open on all sides to contamination in its onward flow and ready at any moment to become, instead of a heaven-sent blessing, a medium for spreading disease and dismay throughout the island. Our illustration shows the water issuing from four spouts into the trough, and the inhabitants can be seen conveying their domestic supplies from it in earthenware jars, calibashes, barrels, or water-carts.

As there is no rain for some six months in the summer time the whole life of the place depends upon the water-supply. It would be a great boon for the island if any English company could be induced to construct reservoirs among the hills in which to store up a supply of water against the time of need. An engineer who visited the island for the purpose of ascertaining the feasibility of making such reservoirs expressed the opinion that he could collect in one week a sufficiency of water to supply the town and surrounding neighbourhood for a whole year. It is pitiful to see the supply of water which is run to waste at the Governor's spring. An inquiry regarding any proposals for taking care of this vast volume of water did not elicit any satisfactory results. The expenditure of some money on the part of the Government in the laying down of iron pipes would ensure to the inhabitants a plentiful supply of reliable water; but this would involve the construction of reservoirs among the hills, of such strength and stability as to withstand the mountain torrents. The inhabitants do not like the idea of works of this kind being erected, lest, as was the case with the new breakwater, they should give way with terribly disastrous results under the first excessive strain. The delay incurred in works of this description does not appear to have been due to the want of funds, but rather to some disagreement between the Local Government Board and the municipality of Funchal. Money has been voted by the municipality for the purpose of carrying out works in connexion with the water-supply, but the President of the Local Government Board has refused to sanction its expenditure, and consequently the town is put to the expense of paying the interest on borrowed money without being allowed to appropriate it to the purpose for which it had been voted. There

A Stall in the Fruit Market.

are many sources from which large supplies of the purest water might be obtained at but little expense and outlay on the part of the Government. At Pico Areeiro there is a large quantity of water which has been running open for so long a time that a great number of people have acquired the right to use it. The shepherds who have been using this water think that to enclose it in iron pipes would be to deprive them of their rights and rob them of its use. In Madeira this commodity possesses a market value considerably above what it has in this country, and the incessant litigation about water rights shows how much vested interest and ignorant prejudice would require to be overcome before the necessary works could be successfully carried out.

If we have dwelt somewhat emphatically on the condition of the drainage and pointed out some of the methods by which reliable supplies of water might readily be obtained, it is because the dread of contagious and epidemic diseases manifested elsewhere by insular residents is not wanting in Madeira. The inhabitants have only one idea of escaping from attacks

of contagious diseases, and that is by enforcing a rigorous quarantine upon vessels coming from suspected ports. This cannot be better illustrated than by what has occurred in connexion with the lazaretto. This is a handsome and commodious building and was erected some years ago for the purpose of allowing passengers not actually infected with cholera to pass the period of quarantine on land. This, however, was resented by the more ignorant portion of the inhabitants. Afraid of the possible spreading of any epidemic, the local authorities, with the acquiescence of the authorities at Lisbon, pronounced the structure to be situated too near the town to be used with safety. Now, there it stands, beautiful in the distance, but empty, and useless so far as its original purpose is concerned. The officials, however, continue to draw their salaries, varying in amount, for work done in connexion with this disused institution. No permanent service is rendered by the building. So much opposition was incurred at its opening that the populace threatened to burn it down if it were to be used even as an isolation hospital for cases of infectious disease. Their whole organisation, then, for dealing with epidemics may be summed up in the one word "quarantine." During the cholera scare in Europe last summer—to quote from Consul Keene's report—the strictest quarantine was enforced on all vessels coming from infected or suspected ports. The authorities have, indeed, even imposed quarantine upon vessels coming from ports at which the closest inspection failed to prove that any cholera had ever existed, and several passengers for the island were obliged to be taken willy-nilly, whether at the companies' expense or at their own we do not know, to the Cape. It is of this form of protection that Consul Keene says, in his report of 1892, that "the stringent measures enforced should perhaps not be found fault with, *as they were successful in keeping cholera out of the island.*" What proof he is able to urge on behalf of this statement we have been unable to ascertain. Quarantine has been enforced as rigorously in Teneriffe, with the result that an outbreak of cholera resulting in an enormous mortality has there run its usual course. Out of a population of 15,000 souls, in six weeks 1559 persons were stricken down with the disease and 275 of them died. When cholera visited Madeira in the year 1866 the sacrifice of over 10,000 inhabitants plainly demonstrated what terrible facilities existed on the island for the propagation and rapid spread of this disease. On that occasion it was said that the authorities took energetic measures to cope with the outbreak. They whitewashed the houses and strewed disinfectants about the streets. In spite of this the epidemic ran its usual course.

The inhabitants of Teneriffe were not sinners above all other sanitary authorities because the epidemic happened to fall upon them. The imposition of quarantine acts as a kind of moral buffer between the consciences of neglectful sanitary authorities and their duty, and they are but too often tempted to sit secure behind the sham shelter of a yellow flag. Everywhere it causes useless misery to be inflicted upon its unhappy victims. So long ago as 1838 Dr. Bowring, in a paper read before the British Association, pointed out some of its selfish consequences. "The pecuniary cost," he said, "may be estimated by millions of pounds sterling in delays, demurrage, loss of interest, deterioration of merchandise, increased expenses, fluctuation of markets, and other calamitous elements; but the sacrifice of happiness, the weariness, the wasted time, the annoyance, the sufferings inflicted by quarantine legislation—these admit of no calculation, they exceed all measure. Nothing but their being a security against danger the most alarming, nothing but their being indeed protection for the public health, could warrant their infliction, and the result of my experience is not only that they are useless for the ends they profess to accomplish, but that they are absolutely pernicious, and that they increase the evils against which they are designed to guard and add to the miseries which it is their avowed object to modify or to overcome."

The Fish Market.

Cholera may be regarded as an exotic of Indian or Eastern origin and, like exotic plants, requires a certain combination of special conditions before it takes root and develops. They require the hot-house or the manure heap for their preservation and cultivation; we have yet to learn exactly what all the conditions are which will enable us to say why cholera should develop in one soil and place and not in another, notwithstanding that it might be introduced simultaneously into both. The readiness with which foreign Governments are ruled by the idea that disease can be imported from place to place like merchandise and give rise to an epidemic is probably everywhere noticeable; but they sometimes forget that even disease when imported into a place well drained, well ventilated, thoroughly clean, and swept throughout by the clear, bright, untainted air of heaven would have passed

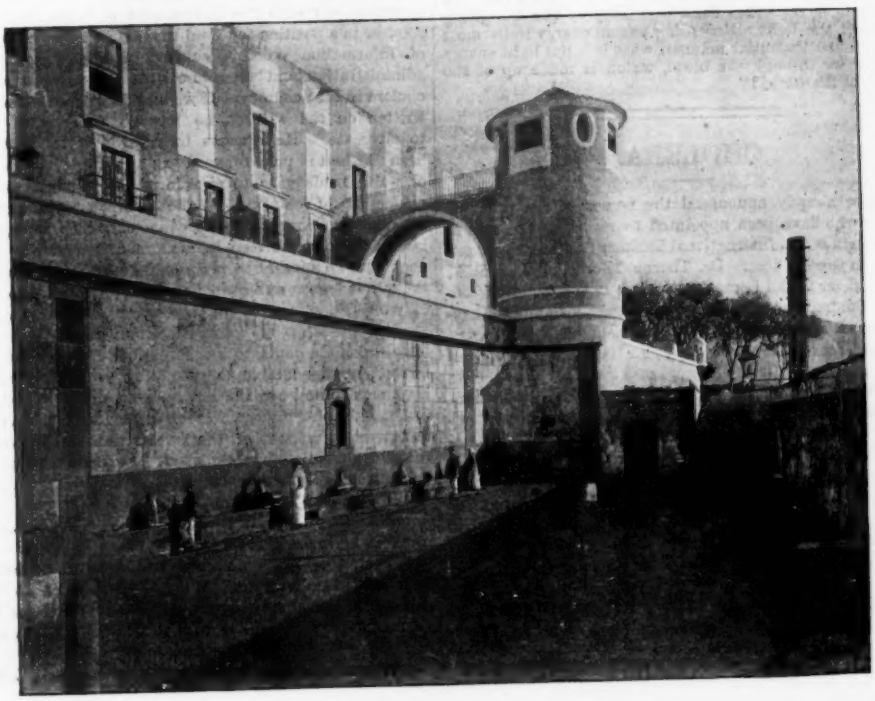
harmless over it if the proclivity to such disease had not existed, ready formed, to welcome its arrival. The proper precaution against the invasion is to place banners, not on quarantined vessels, but in the hands of every member of the sanitary board of Madeira, bearing the inscription: "Cleanse, ventilate, drain, and guard the water-supply." This being acted upon, the island of Madeira could then probably defy the whole of Pandora's box of human miseries and might readily throw open her port at all times and at all seasons to the stranger without let, hindrance, or inquiry. The accredited representatives of America look upon quarantine as justifiable only in the case of a filthy emigrant population arriving on their shores in a filthy condition, in filthy ships, and from filthy starting-places. They are, probably with reason, anxious that the various European Governments responsible for sending out such a class of persons at the rate of 4000 to 5000 a year should do something in the way of improving their ports and the ships before sending such passengers to the shores of America. At Madeira the door is wantonly shut against a very different class of passengers. To close the ports against the vessels which convey them to the island is the result of fear and of a law imposed by authorities unfamiliar with the epidemic history of the disease.

The complicated measures adopted at Madeira, besides affording great inconvenience to the passengers and visitors, are not only annoying but detrimental to trade. The following is a typical instance of the futility of their quarantine regulations. The case is quoted from the report of the British Consul: "The British sailing vessel *Plover* sailed from New York on Sept. 19th for Madeira with a cargo of grain in bulk and in bags, some salt fish, and walnut wood. New York was an infected port when she left; some time before her arrival at Madeira it was declared free. The *Plover* arrived at Funchal on or about Oct. 14th, thus having been at sea twenty-three days. Her master reported all well on board and no sickness during the voyage. She was placed in quarantine, but allowed to land the grain all in bulk; the bags, value £100, the property of the consignee, were ordered to be kept on board. The fish and the walnut wood were not allowed to be landed (value on delivery at Madeira less than £100). The vessel might, however, have proceeded to Lisbon and there landed it on the lazaretto; she could then have reshipped it and landed it at Madeira. The venture would have been swallowed up in expenses; the vessel, therefore, sailed to the West Indies to take in a cargo, and there sold the salt fish and walnut wood. It was a difficult matter to make the master grasp the situation. A curious part of this case is that a steamship could have left New York a week after the *Plover* and, arriving before her at Madeira, would have been admitted to free pratique."

Madeira Water-supply. Cascade at Rabaçal.

There exists in the history of epidemics absolutely no clear proof of the efficacy of quarantine in preventing cholera epidemics. The communication between infected districts of the Continent and England was of the freest character during the recent outbreaks. It is common knowledge that boats from the infected French ports constantly arrived in this country from the Continent, and yet there was no epidemic here. The cases which occurred in the midland counties of England during the last year did not extend to the southern counties of England or northwards into Scotland, yet there was no quarantine and there were no sanitary cordons save those which nature has provided in the Cheviot

An Artificial Mountain Rill.



The Public Water-supply.

Hills and the Tweed. On the other hand, the intercourse was of the freest description. Ships undergoing quarantine are anchored on the east side of the Loo rock, in a position most favourable for allowing infection to be blown by the prevailing winds from the vessels to the middle of the town.

What is wanted is that the opinion of experts shall be taken as to the best mode of securing that the water-supply of the island as distributed amongst the people for drink and food purposes shall be absolutely under control and supervision, and that the Government shall then proceed without delay to carry these recommendations to a practical issue.

In taking leave of this corner of the globe so favoured by Nature we may ask ourselves once more what it is that gives to it and to places like it their pre-eminence as health resorts. The answer to this question has been supplied in detail in the foregoing description of the equability of its climate, the purity of its air, and the special peculiarities of its site; but of all its attributes there is none which acts so powerfully in restoration to health and vigour as the plentiful sunshine in which the island is bathed. It is not warmth so much as light that operates in quickening the processes of nutrition and furnishing the blood with fresh energy. To English people accustomed to pass many weeks and months in each year in our crowded and smoke-fouled cities, no more striking change of environment can be imagined that that which they meet with on the shores of the Mediterranean, by the waters of the Nile, or in islands such as Madeira. There is indeed much truth in the eloquent words of the late Dr. Gawen Sutton with which we may fitly close these articles. Speaking of the influence of light upon the organism, he says[2]: "In plants it is manifest, and is admitted on all hands, that life and light work continuously together; both chemical activity and nutrition in plants are dependent on light. The vegetative functions in animal and in human structures are, we have been led to consider, equally dependent on light, which in human nature is Heaven's life-giving energy. Therefore, the serous circulation fails, and the nutrition of the tissues fails, and the blood and the vessels at last perish, when the body is deprived of that heavenly supporter. The trees and plants spread their leaves to reach the light—the power of Heaven, which raises them up; the animals rise with the morning, and feast and fatten in daylight; children grow in health and strength, and are most happy gambolling in the sunshine; old persons, looking for renewed health, rise early to enjoy the freshness and purity of the rising sun. In countless ages there has been testimony to the life-giving influence of the light. Regarding human energy in its most material and substantial manner, what is it but light-energy working in or through the blood, which is made up of the products of the world?"

CHOLERA.

WE have already announced the names of the principal delegates who have been appointed to represent the various Governments at the International Sanitary Conference opened at Paris on the 7th inst. Dr. Thorne Thorne, C.B., F.R.S., Medical Officer to the Local Government Board, and Surgeon-General Cuningham, C.S.I., M.D., formerly Sanitary Commissioner with the Government of India, left England for the Paris Conference early this week. In the meantime an important communication has appeared in *The Times* from Dr. Klein *apropos* of the defence of Europe against cholera, which is practically the main object that the Conference has to deliberate and decide upon. M. Hanotaux, the Minister Plenipotentiary and delegate of France, has, it appears, stated that the Conference will occupy itself principally with the examination of the Asiatic origin of cholera, dealing with the Mecca pilgrimages, and he has reason to hope that the Sultan of Turkey and the Shah of Persia will assist in arresting the development of the disease at its Asiatic ports of entry and posts of reinforcement. Dr. Klein, however, passes in review the facts connected with the recent medical history of epidemic cholera with the object of showing that France imports her own cholera—that is, that she does not acquire it from Turkey or from Persia, but from Tonkin, and, having imported it, allows it to spread through France, and from thence to Italy and Spain. He thinks that there exists in this direction a danger of the same kind and not less real than that which threatens from Persia and Turkey, and that the work of the forthcoming Conference will be incomplete if this danger, which is much nearer to Europe than to Turkey in Asia and Persia, does not receive its attention and consideration; moreover, there is also the fact that the French authorities, although they have signed the Dresden protocol and have agreed to the official notification of the existence of cholera, nevertheless place their own interpretation upon it, and only give such notification conditionally—that is to say, if a "foyer" or "focus" of cholera exists. Readers of THE LANCET need not be reminded that such an interpretation admits of great latitude and that, as a matter of fact, the occurrence of cases of cholera in any district or locality of France may be ignored, so far as Europe is concerned, until the extent and prevalence of the disease are such that it is no longer possible to ignore it. We have frequently adverted to the fact that there were two epidemics of cholera in Europe in 1892, one of which invaded Russia and appeared in Hamburg in that year, while the other was previously actually present and spreading in France in the same year from April to the end of September, by which time it had involved over 300 communes. It is pretty well known that in the French epidemics of 1884 and 1892 the existence of cholera was for a long time persistently ignored in France, and some of the facts connected with the history of the latest epidemic in that country have been so recently placed on record by our Special Correspondent in that country that they must be still fresh in our readers' memory. It is probable that the Paris Conference will also consider the sanitary service in India in relation to cholera, as well as the connexion and spread of that disease by the great religious gatherings and fairs held in that country. The late Sanitary Commissioner with the Government of India must, at any rate, be in a position to afford the Conference a large amount of information on this subject, and on Indian medical administration and procedure generally in connexion with cholera in that country. If we may judge from what he has written on the subject, he has no theories of his own to advocate. He appears to regard all those that have been hitherto put forward as partial and incomplete or quite inadequate to explain the phenomena of Indian epidemics of cholera. While occupying the position of an agnostic in regard to its exact causation, as specifically laid down or formulated in modern and generally accepted doctrines, he appears to place entire reliance on sanitation—in its broadest as well as in its more restricted sense—as the only reliable safeguard we possess, and we may assume that he is opposed to all quarantine and restrictive measures based upon the contagious or infectious properties of cholera, but strongly favourable to promoting everything that would hygienically improve the environment of the population or individuals liable to the risk of contracting it. As regards his views in respect of the former position he will, most probably, not find himself at all in accord with the other delegates to the Conference. The debates and proceedings of the latter are likely to prove interesting, if only from the importance of the subject and from the eminence and ability of those taking part in its discussion.

The cholera epidemic does not seem to be completely stamped out in Brittany. In the department of Le Finistère there were four deaths from the disease during the last few days of January; two occurred at Concarneau, one at Brest, and one at Pouldergat.

A somewhat serious epidemic of cholera has broken out at

[2] Lectures on Pathology, p. 429, 1891.

Namur, on the eastern frontier of Belgium. There had been numerous cases of the disease last autumn in the Charleroi district, and it is thought that some of the dejecta were then thrown into the Sambre. It is just at the point where this river falls into the Meuse at Namur that cholera has re-appeared. The first case occurred on Dec. 10th last, and from that date up to Jan. 25th of this year there were 41 cases and 23 deaths in the town. Most of the cases were of a very severe type and were generally fatal after an average of five or six hours' illness. In the neighbourhood of Namur, at Flawinne, there were 7 cases and 3 deaths; at Auvelais there were 15 or 16 cases and 8 deaths. In other districts 18 cases were notified, resulting in 13 deaths. At Saint-Trond, in the district of Saint Pierre, 15 sudden deaths are recorded. As usual, the poorest, the intemperate, and those who lived in the most insanitary conditions were the principal sufferers. A special isolation hospital has been opened at Namur. Most of the clothing worn by the patients has been burnt, and the bedding has been disinfected in stoves where it was exposed to a temperature of 130° C.

THE BACTERIOLOGY OF CHOLERA IN INDIA.

AT the present time, when the International Sanitary Conference has opened its proceedings in Paris, it will interest our readers to learn what has been taking place in India in regard to the bacteriological question of cholera. In reply to a communication from the Editors of THE LANCET sent towards the end of last year Brigade-Surgeon-Lieutenant-Colonel D. D. Cunningham, C.I.E., M.B., has been good enough to forward us the following proof copy of a paragraph which he has contributed to the forthcoming annual report of the Sanitary Commissioner with the Government of India as to the views which the results of his bacteriological experiments and observations have led him to entertain regarding the bacteriological question of cholera:—

"The evidence which has been gradually accumulated in the laboratory attached to the office of the Sanitary Commissioner with the Government of India during the course of the past four years appears fully to justify the conclusion that there is no one specific choleraic comma bacillus. Certain distinct forms of comma bacilli obtained from cases of cholera have now been in continuous cultivation for nearly four years, and various others for periods ranging from over three years to one year and a half. During the periods in which they have been cultivated they have all been exposed to the influence of precisely similar conditions. They have been grown in portions of the same media in the strictest sense, they have been transplanted simultaneously, and have been exposed to like conditions of environment during growth, and yet they continue to present well-defined differences. Abundant evidence has been acquired that the majority of them are extremely susceptible to both morphological and physiological modifications under the influence of prolonged exposure to particular environments, and consequently there are fair grounds for concluding that, under the influence of prolonged cultivation under precisely common conditions, any distinctive peculiarities which were originally present, not as the result of any inherent specific peculiarities, but merely owing to antecedent exposure to unlike conditions, ought to have disappeared. But no tendency to any such general assimilation in the characters of the various forms has manifested itself. Prolonged cultivation under special conditions has certainly in many cases given rise to important modifications of property, but these have not been of a nature to produce any general unification of the various forms; they have not led to the development of any common average form as the result of disappearance of distinctive features. The distinctive features which the various forms now present are not invariably precisely of the same nature as they originally were, which, of course, is only natural in a group of modifiable organisms; but where the original differences have disappeared equally conspicuous new ones have replaced them. There is thus no scientific ground whatever for the assumption that all the distinct forms of comma bacilli occurring in connexion with cases of cholera are mere varieties of one species. Taking the facts as they stand, there are no more logical grounds for regarding all the forms of choleraic comma bacilli as mere varieties than there are for regarding all schizomycete organisms as such. Any definite relation between the occurrence of cholera and the presence of a particular species of comma bacillus within the intestinal tract cannot, therefore, be shown to exist, and with this any theory ascribing the choleraic condition to the action of any distinct species of intestinal organism which has yet been discovered comes to the ground; but, more than this, the induction of the choleraic condition cannot even be ascribed to the action of a group of organisms consisting of the various forms of comma bacilli which occur within the intestinal tract in cases of the disease, seeing that cases occur in which there is no evidence of the presence of comma bacilli of any kind whatever. If the induction of the primary choleraic condition be owing to the action of any organisms growing within the intestinal tract, these have yet to be found. The introduction of large quantities of comma bacilli into the intestinal tract has never yet been satisfactorily shown to lead to the development of cholera, and comma bacilli of various kinds frequently abound in the intestinal contents of cases which are unequivocally not of choleraic origin in the ordinary sense of the term. There is thus no evidence to show that any form of comma bacillus is capable of inducing the choleraic condition if it gain access to the intestinal tract, and there are many facts suggesting that the frequency with which comma bacilli abound within the intestinal tract in cases of cholera is a consequence, not a cause, of the choleraic condition. Even, however, if this be so; even if the prevalence of comma bacilli within the intestinal tract hold a consequential and not a causal relation to the establishment of the primary choleraic condition, it by no means necessarily follows that they are of no importance. Some forms, at all events, may be capable of affecting the ultimate course of the disease owing to the nature of the products to which they give rise and which are liable to enter the system in bulk whenever active intestinal absorption begins to be re-established. The facts as they stand afford no reasonable grounds for supposing that any measures establishing immunity from the toxic effects of the products, which are certainly produced by certain forms of comma bacilli and other schizomycete organisms, can have any appreciable effect on the prevalence of cholera, but, at the same time, they are such as to render it not unlikely that the immunity may be capable of affecting the mortality of the disease."

THE REPORT OF THE ROYAL COMMISSION APPOINTED TO CONSIDER THE DRAFT CHARTER FOR THE PROPOSED GRESHAM UNIVERSITY OF LONDON.

THE Royal Commissioners appointed to consider the draft charter for the proposed Gresham University of London have concluded their report, in which they point out the lines on which they think the charter might be amended and extended so as to form a practical scheme for an efficient Teaching University of London.

The Royal Commissioners, after full and careful inquiry, have come to the conclusion that there should be but one university, and that the existing University of London should be reconstructed so as to discharge the teaching duties. The necessary changes, in their opinion, should be effected not by charter, but by legislative authority, and by the appointment of a Commission with statutory powers. These powers and the duties consequent upon them should be as follows: (1) To determine in what mode, and under what conditions, any property now held by the University of London should continue to be held by the University as reconstituted, regard being had to any trusts to which the same is now subject. (2) To receive the assents of the various institutions to be admitted as schools in the University, and with reference thereto to determine, in the first instance,

(*a*) whether any institution is to be admitted as a whole to be a school in the University, and if not, in respect of what department or departments it is to be admitted; (*b*) what teachers in such institutions are, in the first instance, to be recognised as teachers in the University, and in which Faculties they are respectively to be placed. (3) To receive the assents of the various persons and bodies, other than the Crown, the Convocation, the Faculties, and the Academic Council, who are to nominate to seats upon the Senate. (4) To determine the time or times within which, and the mode or modes in which, nominations are in the first instance to be made by the various nominating persons and bodies—(*a*) to the Academic Council, (*b*) to the Senate; to determine (when necessary) the period of office of those first nominated upon the Academic Council and the Senate respectively so as to secure a due rotation; and to receive and record or appoint some person to receive and record such first nominations. (5) To frame, in accordance with the recommendations now submitted, the statutes of the University, and such ordinances as they may deem necessary for the conduct of business. (6) To make temporary provision for effecting the transition from its present form and functions to its new constitution. (7) An application by the governing body of any of the above institutions to repeal their existing constitution in any detail, and even take over trust funds, property, &c. (8) Generally to make such orders from time to time as may seem necessary to them for carrying into effect any of the matters aforesaid.

The following is a detailed summary of the recommendations of the Commissioners, but the report, though signed by all, has as appendices dissentient notes, with explanations, from nine out of thirteen of the gentlemen forming the Royal Commission.

SUMMARY OF RECOMMENDATIONS.

Visitor.

The Queen will be Visitor of the University.

The Chancellor.

The Chancellor will be elected by Convocation, will hold office for life, will be head of the University, and *ex officio* a member of the Senate and of Convocation. He will preside over all meetings of the Senate at which he is present.

The Vice-Chancellor.

The Vice-Chancellor will be elected annually by the Senate out of its own body and will be *ex officio* a member of Convocation, a member of all boards and committees appointed by the Senate and a member of the Academic Council. He will, in the absence of the Chancellor, preside over all meetings of the Senate and will be chairman *ex officio* of all boards and committees appointed by the Senate and of the Academic Council.

The Constitution of the University.

The constituent bodies of the University will be the Senate, the Academic Council, the Faculties and Boards of Studies and the Convocation.

The Senate.

The Senate will consist of the Chancellor and of sixty-five other members appointed as follows: three by the Crown; three by the Lord President of the Council (one in respect of the Royal College of Science, one in respect of the Education Department and one in respect of Art); one by the Secretary of State for the Colonies; one by the Secretary of State for India; nine by the Convocation (two each by the registered graduates in Arts, Science, and Medicine, and one each by the registered graduates in Law, Theology, and Music); two by the Royal College of Physicians; two by the Royal College of Surgeons; one by the Society of Apothecaries; four by the Inns of Court [one for each Inn]; two by the Incorporated Law Society; one each by the Royal Agricultural Society, the Institution of Civil Engineers, the Institution of Mechanical Engineers, the Royal Institute of British Architects, the Trustees of the British Museum and the Royal Society; two by University College; two by King's College: one each by the governors of the City and Guilds of London Institute, the Corporation of London, and the Mercers' Company; two by the London County Council; and twenty-two as follows: four by the Academic Council, four by the Faculty of Arts, five by the Faculty of Science, four by the Faculty of Medicine, two by the Faculty of Law, two by the Faculty of Theology, and one by the Faculty of Music.

All members of the Senate, other than the Chancellor, will (except by special provision in the case of the first appointments) be appointed for a term of four years. The Senate will be the supreme governing body of the University, and will have power from time to time to frame statutes[1] to be submitted to the Queen in Council and to be laid before Parliament, for altering or adding to the constitution, powers or functions of the University.

The Senate will further have power to make, alter, or revoke ordinances[1] for regulating all matters concerning the University and to exercise all powers and do all things authorised to be exercised and done by the University, provided always: (1) that any such ordinance be not repugnant to any provision of the statutes of the University; and (2) that it shall not adopt or impose on any person any test whatsoever of religious belief or profession or assign any grant of money for any purpose in respect of which any privilege is granted or disability imposed on account of religious belief.

Subject to these conditions the Senate will, in particular, control the affairs and property of the University, regulate the amount and determine the distribution of all fees payable to the University, and appoint a registrar and other officers necessary for conducting the business of the University; Assign funds for the conduct and administration of the University and, after first inviting the opinion of the Academic Council, assign funds for the erection or extension of buildings, for the provision of teaching and equipment, and for the endowment or remuneration of University professors, readers, lecturers, demonstrators, or assistants; Make regulations regarding scholarships and other emoluments; For good cause deprive the holder of any University office or emolument of such office or emolument; Admit institutions or departments of institutions as schools of the University, visit such schools, and (subject to an appeal to the Queen in Council) remove any institution or department of an institution from being a school of the University; Recognise medical schools other than schools of the University for the time being, as schools from which candidates will be allowed to proceed to medical degrees, and withdraw such recognition; Alter the number and distribution of the Faculties; appoint university professors upon the report of standing boards appointed by it for the purpose; appoint university readers, lecturers, demonstrators, and assistants upon the report of boards, whether boards of studies or otherwise; Determine the duties of university professors, readers, lecturers, demonstrators, and assistants; Assign university professors, readers, and lecturers to their respective Faculties; Regulate the admission and order the examinations of internal and external students; Appoint a standing board to superintend, regulate, and conduct the examinations for external students, and to advise external students in the prosecution of their studies; Appoint examiners of internal students, upon the reports of boards of studies transmitted through the Academic Council; Appoint examiners of external students upon the nomination of the board for external students; Appoint a standing board to promote the extension of university teaching, and upon the report of the Academic Council recognise work done under the superintendence of the board as an equivalent for parts of the regular university course; Confer degrees, diplomas, and certificates; Admit duly qualified graduates to the register of Convocation, and for non-payment of fees, or for other good cause (subject to an appeal to the Chancellor), remove the name of any member from the register; Determine the manner of conducting the election of the Chancellor, and of the representatives on the Senate of Convocation, of the Faculties, and of the Academic Council; And elect the Vice-Chancellor out of its own body.

Sixteen members should form a quorum.

The Academic Council.

The Academic Council will consist of the Vice-Chancellor, who shall preside, and of fifteen members, elected by the Faculties as follows: four by the Faculty of Arts, four by the Faculty of Science, three by the Faculty of Medicine, two by the Faculty of Law, one by the Faculty of Theology, and one by the Faculty of Music. All representative members of the Academic Council will (except by special provision in the case of first appointments) be elected for a term of four years.

The Academic Council will elect four representatives upon the Senate, and, subject to the statutes and ordinances of

[1] By a "statute" is meant a law of the University, alterable only by the Queen in Council, with the usual reference to Parliament; by an "ordinance" a law of the University passed by the Senate and alterable upon its sole authority.

the University, will have power:—To recognise teachers in any admitted school of the University as teachers of the University and to withdraw such recognition; To assign such teachers to their respective Faculties; To assign, if they think fit, a place upon the Faculties to demonstrators and assistants appointed by the University; To determine the number and composition of the boards of studies in each Faculty, and the mode of election and period of service of the members of the boards; To appoint such members as they think fit upon any board of studies, provided that the number so appointed shall not exceed one-fourth of the board; To delegate to any board or boards of studies such functions as it may see fit, and to refer any matter for report to any board or boards of studies; To direct the Dean of any Faculty to summon a meeting of the Faculty for the consideration of a report of any board of studies belonging to the Faculty; To determine curricula of study and examination, after having had before them the opinion of the board or boards of studies of the Faculty concerned; To settle university courses of study to be pursued at any school of the University, after consultation with the authorities of the institution concerned; And to arrange for the holding of university examinations for internal students, in so far as these are separate from those for external students, and to fix the times and places at which they shall be held.

Six members should form a quorum.

Faculties and Boards of Studies.

The Faculties will be six in number—viz., Arts, Science, Medicine, Law, Theology, and Music; and the Faculty of Science will be divided into two departments, one for pure and one for applied science: but the number and distribution of the Faculties may be altered from time to time by ordinance of the Senate.

The Faculties will consist of: (1) university professors, readers, and lecturers: (2) university demonstrators and assistants approved by the Academic Council; and (3) teachers in the schools of the University recognised by the Academic Council. University professors, readers, and lecturers will be assigned to their respective Faculties by the Senate, and university demonstrators and assistants [if approved for the purpose], and all recognised teachers of the University, will be assigned to their respective Faculties by the Academic Council.

Each Faculty will elect representatives upon the Senate, in the manner prescribed by the Senate, as follows: the Faculty of Arts, four: of Science, five; of Medicine, four; of Law, two; of Theology, two; and of Music, one. Each Faculty will elect representatives upon the Academic Council, in the manner prescribed by the Senate, as follows: the Faculty of Arts, four; of Science, four; of Medicine, three; of Law, two; of Theology, one; of Music, one.

Each Faculty will elect a dean, to hold office for four years. The dean of each Faculty will summon a meeting of the Faculty when he sees occasion, or when directed by the Academic Council, or when requested by one-third of the members of the Faculty to do so.

In each Faculty a board or boards of studies will be constituted in the way determined by the regulations of the Academic Council, and not less than three-fourths of the members of every such board will be elected by the Faculty to which it belongs. Each Faculty or board of studies will consider and report upon any matter referred to it by the Senate or the Academic Council, and may consider any matter concerning courses of study, examination, degrees, diplomas, certificates, and teaching in subjects within the province of the Faculty, and report to the Academic Council thereon. Each board of studies will elect its own chairman and conduct its own proceedings. A board of studies may meet and act concurrently with another board or boards, and will, if so requested, deliberate in conjunction with the Academic Council or any committee thereof. Any board of studies may exercise administrative or executive functions expressly delegated to it by the Senate or the Academic Council.

The Convocation.

Convocation will consist of the Chancellor, the Vice-Chancellor, and registered members as follows: (1) present members of Convocation: (2) graduates of the existing University qualified to be members; (3) future graduates of three years' standing from the date of first graduation; (4) members of the Academic Council registered under ordinance of the Senate; and (5), subject to the assent of Convocation, persons admitted to a degree otherwise than by ordinary graduation.

Saving the rights of members already registered or qualified to register, members of Convocation will be required to register and to pay fees according to the regulations of the Senate. In default of payment of fees, or for other good cause (subject to an appeal to the Chancellor), the names of members may be removed from the register by the Senate. Convocation will elect its own chairman, manage and record its own proceedings, and appoint a clerk with such salary as the Senate may determine. It will be convened by the chairman once at least every year as provided by the Senate, and at other times if directed by the Senate; the chairman will at his discretion convene an extraordinary meeting for the despatch of specified business, if so requested in writing by twenty members of Convocation, but no such extraordinary meeting will be held within three calendar months of the last foregoing extraordinary meeting. When convened for ordinary purposes it will have power to discuss any matter relating to the University, and declare to the Senate its opinion thereon, but for the decision of any question in Convocation the numbers present should be not less than fifty. Convocation will be entitled to express its views before the Queen in Council upon any alteration of the Statutes proposed by the Senate. It will elect the Chancellor, voting by voting papers, in accordance wich regulations laid down by the Senate; and will have nine representatives upon the Senate. But until the registered graduates in theology amount to twenty their representative will be elected by the registered graduates in arts. The elections will be conducted by voting papers in accordance with regulations laid down by the Senate.

Schools of the University.

A school of the University will be any institution or department or departments of an institution admitted by the Senate to a place in the University as a school at which university courses of instruction may be pursued. In deciding the claim of any teaching institution to be admitted as a school of the University the Senate will consider: (*a*) the character of the foundation; (*b*) whether the teaching and appliances are of university rank; (*c*) the average age of students; (*d*) the number of students proceeding or likely to proceed to university degrees; (*e*) financial position; (*f*) relation to any other university. But the claim of special institutions for research will be considered on the special merits of the case.

The following institutions will be admitted in whole or in part as schools of the University:—University College; King's College; the Royal College of Science; the medical schools of the following hospitals: Charing-cross, Guy's, London, Middlesex, St. Bartholomew's, St. George's, St. Mary's, St. Thomas's, and Westminster; the London School of Medicine for Women; the City and Guilds of London Institute; Bedford College; the following theological colleges: Hackney, New, Presbyterian, Regent's-park, Cheshunt and Richmond; and the following four colleges of music; Royal Academy, Royal College, Guildhall School of Music, and Trinity College; and, under certain reservations, the Inns of Court and the Incorporated Law Society.

No institution will in the future be admitted which is not within the administrative County of London, including the County of the City of London, but any institution or department of an institution which the Senate shall refuse to admit as a school of the University will have a right of appeal to the Queen in Council.

Any teacher in a school of the University, who has been duly recognised by the Academic Council, will be a member of the Faculty or Faculties to which he is assigned by the Academic Council.

The courses of university study to be pursued at any school of the University and the requirements of attendance will be regulated by the Academic Council, after first consulting the authorities of the institution.

Schools of the University will be open to the visitation of the University, and subject to the right of appeal to the Queen in Council any school may be removed by the Senate from being a school of the University.

Examinations and Degrees.

The University may, if it think fit, impose an entrance or matriculation test on all students of the University, and may accept in lieu of any such examination other examinations of equivalent standard. It will recognise students of two kinds, internal and external. Internal students will pursue regular courses of study, of not less than three academic years' duration, under the regulations of the Academic Council, in a school or schools of the University. External students will proceed to a degree by way of examination

without attendance, and three academic years must elapse between their first examination by the University and their final examination for the first degree. The final examinations for the first degree, for internal and external students respectively, will, if not the same, represent the same standard of knowledge, and will be identical so far as identity is consistent with the educational interests of both classes.

All candidates for degrees in medicine will be required to go through regular courses, whether in schools of the University or in other schools recognised by the University. The degrees should, as a rule, be of two orders only. The degree of Doctor will, except in medicine, be conferred only on those who have by study or research contributed to the advancement of learning or science. In addition to ordinary graduation, degrees may be conferred without examination on university professors; similar and equal degrees on graduates of other universities who are recognised teachers of the University; and honorary degrees, except in medicine, on persons esteemed worthy of that distinction by the Senate.

ARMY MEDICAL SCHOOL, NETLEY.

TERMINATION OF THE SIXTY-SEVENTH SESSION.

ON Wednesday, Jan. 31st, the winter session of the Army Medical School, Netley, was brought to a close. The results of the recent examinations held in the school were read by Brigade-Surgeon-Lieutenant-Colonel J. Lane Notter, Professor of Hygiene and Secretary to the Senate, in the presence of a distinguished company, including Sir Alfred Lyall, K.C.B., and Lady Lyall, Sir Joseph Fayrer, K.C.S.I., Sir Thomas Longmore, C.B., Dr. W. H. Allchin, Surgeon-Major-General Broke-Smith, the Principal Medical Officer, Netley, and the staff of the Royal Victoria Hospital. Sir Alfred Lyall presented the prizes to the successful officers. The following are lists of the surgeons on probation for the Army Medical Staff and Indian Medical Service in their respective orders of merit who were successful at both the London and Netley examinations:—

ARMY MEDICAL STAFF.

The prizes are awarded for marks gained in the special subjects taught at the Army Medical School. The final positions of these gentlemen are determined by the marks gained in London added to those gained at Netley, and the combined numbers are accordingly shown in the list which follows.

	Combined marks.		Combined marks.
Prynne, H. V.	4736	Cameron, K. M.	3980
Master, A. E.	4635	Fleury, C. M.	3717
Danney Browning, G.	4327	Fox, A. E.	3657
Clark, E. S.	4073	Green, S. F.	3628
Barnett, K. B.	4051	Tibbits, W.	3485
Boyle, M.	4015		

INDIAN MEDICAL SERVICE.

The final positions of these gentlemen are determined in the same manner.

	Combined marks.		Combined marks.
*Lamb, G.	5634	Bennett, H.	4385
†‡Burden, H.	5188	Harriss, A.	4318
Leumann, B. H.	4802	§Berry, A. E.	4304
Fisher, J.	4578	MacLeod, E. C.	4282
Peck, E. S.	4479	Thomson, C.	4045
Evans, C. H.	4419	Fraser, H.	4032

* Gained the Herbert Prize of £30, with the Martin Memorial Gold Medal, the Parkes Memorial Bronze Medal, the Montefiore second prize, and a prize in Pathology presented by Professor A. E. Wright, M.D.

† Gained the Montefiore Medal and Prize of 20 guineas, and the prize in Clinical Medicine presented by Surgeon-General W. C. Maclean, C.B.

‡ Gained the De Chaumont Prize in Hygiene.

§ Gained a prize in Pathology presented by Professor A. E. Wright, being of equal merit in this subject with Mr. Lamb.

After congratulating the prize-winners on having scored their first public success, Sir Alfred Lyall in a felicitous speech reminded the young officers that the prizes of the world were before those who had not taken premiums as well as before those who had lately proved themselves so successful. Success put good spirits into a man and sent him out into the world with good hopes and with a well-merited degree of confidence in himself. He said he felt sure it was not necessary to warn the prize-winners not to take away too much of this confidence. Though it was an excellent thing to have won prizes, prizes were not everything in life, and an examination did not test those very high qualities which came in with such effect later—qualities which formed the mainspring of professional success—judgment, activity, and accuracy in thought and action. The whole history of professional careers showed that those who had not won prizes were often later on in life very formidable rivals of those who had. He observed that although the word "luck" was an element in the success of many, yet the word formed by the prefix of a "p" would have a far greater influence on the careers of those listening to him, and he reminded his hearers that no less than three officers of the services had of late been awarded the Victoria Cross for bravery in Burmah. In addressing the Indian officers he spoke of the immense field open to them, not only in the medical department of the army in India, but also in the civil departments in the gaols and sanitary service. In speaking of the width of field he mentioned the names of distinguished officers of the Indian Medical Service who had been led away from medical work to become administrators and ambassadors. He advised all the officers of both services, when in India, to cultivate the friendship of the natives, to get to know and understand them, for they were worth knowing; and to study their languages, their religions, and their prejudices. In wishing the young officers prosperous careers he spoke to them of the preservation of their health, and reminded them that good health meant steady nerves, and steady nerves power at critical times—power to cope with difficulties and to pass through times of strain in such a way that in future years such moments could be remembered with pleasure and satisfaction. He hoped that the young officers would ever do their duty in the spirit of men who remembered that they had in trust the reputation of England and the character and traditions of high and noble services.

Sir Joseph Fayrer spoke of the pleasure which he always felt in the opportunities accorded him of addressing a few words to the young officers before they left the Netley School. He said he did not consider that they need much fear the Indian climate, for although epidemic diseases were common and severe in India the influenza, pneumonia, and bronchitis of this country were almost as much to be dreaded. He spoke of the enormous field of research open to the young officers of both services; he reminded them that medical science was still in its infancy and that they should go to India and other parts of the world with unbiased minds ready to observe, record, and discover. They left the Netley School splendidly equipped and in every way fit to go to India and other foreign stations and build up the science of the future. He also spoke to them of the preservation of their own health in tropical climates. He wished them good health and good fortune, and hoped that they might one and all some day revisit Netley.

Surgeon-Major-General Broke-Smith addressed a few words to the company, thanking Sir Alfred Lyall for his kindness in coming to Netley to distribute the prizes and for the admirable address which he had delivered. The ceremony was brought to a conclusion by a few words from Brigade-Surgeon-Lieutenant-Colonel Notter, in which he wished the young officers God-speed. The company was afterwards entertained at luncheon at the Army Medical Staff mess.

THE HERMITE PROCESS AT WORTHING.

(FROM OUR SPECIAL COMMISSIONER.)

FROM interviews courteously and cordially granted to me to-day by the mayor, the surveyor, and the town clerk of this town I have ascertained that the Hermite system of sewage treatment, an account of the technical working of which as recently conducted at Havre was described by your special correspondent in the last issue of THE LANCET, is still in the preparatory stage at Worthing, but it is hoped that very shortly—in a week or so, perhaps—the experimental plant and machinery which have been erected at the rear of a row of small houses in a street situated in the western part of the town (West-street) will be quite ready for demonstration by the inventor, M. Hermite himself. Commendably anxious to free the unfortunate town in the coming summer from all reproach in regard to its sanitary condition, the town council

have consented, as a preliminary test experiment, to place a small row of houses, occupied for the most part by poor persons, at the disposal of M. Hermite, in order that he may demonstrate the working conditions of the process and also to enable him to unfold its merits. For this purpose the houses have been fitted with cisterns and pipes to supply the "electrolysed fluid" for flushing purposes. The fluid is produced in the electrolyser by the action of a current of electricity on clear sea-water, the current being generated by a dynamo, which, with an engine, is situated in a yard in the rear of the house at the end of the row. At present the sewers are laid open to admit of inspection when the whole plant is in action. The treated sewage discharge is to fall into an intercepting syphon fitted with a screening arrangement, into which solid matters are temporarily deposited, but by the continued flow of "electrolysed fluid" over this deposit the fæcal matter, so it is asserted by the inventor, is disintegrated and gradually destroyed. The plans and arrangements at this experimental station, which I have very cursorily viewed, have been carried out, I learn, under M. Hermite's instructions entirely. The town council are moving no more in the matter for the nonce than to offer M. Hermite every facility for carrying out a fair experiment, and to accomplish this in accordance with his requirements they have voted the sum of £200 to meet the expenses of his undertaking. Although experiments in the same direction—as has already been indicated in the columns of THE LANCET and referred to previously—have been carried out at Havre, Rouen, and other places, and reports as to the results drawn up, it would be premature to express any opinion as to the worth or practical value of the process until an actual trial has been made on English soil. All criticisms, therefore, may be reserved until, as promised, the experiments at Worthing take place a week or so hence—that is, as soon as M. Hermite is at liberty to go to Worthing to personally conduct and explain the operations. Disappointment has been expressed in several quarters at the seeming delay of the trials which have been announced pretty freely in the press to take place shortly, but I am able to state, and it will give many satisfaction to know, that the electrical engineers appointed by M. Hermite have got to work, and they have for some time been steadily fixing the necessary plant and adjusting it to meet the especial requirements of the present case. It is true that the date of the trial is not definitely fixed, but it is needless to say that the inaugural ceremony will be looked forward to with keen interest. It is only due to the council to add that their earnest desires to adopt effective preventive measures in the interest of the comfort and prosperity of the inhabitants and of the health of the visiting public is being fully appreciated, while all those interested in the vexed question of the treatment, disposal, and deodorisation of sewage will be grateful to them for affording experts and other municipal authorities in the kingdom an opportunity of inspecting the process in actual working order, so that they may be able to express an opinion which will be valuable, because based upon the results of actual practical observation.

It may be of interest to add, in regard to the water-supply, that since it was ascertained that the water was the *fons et origo* of the epidemic the existing supply was speedily stopped and the mains disconnected from the reservoirs, which are situated in a central part of the town. In the meantime tanks were placed at the corners of the streets and kept supplied with water conveyed in carts from the new boreholes which have been cut in the chalk in the hills behind the neighbouring village of Broadwater. These tanks, on each of which is posted a large label bearing the words "drinking water," are still in position and are still filled with water from the source indicated, but carts also deliver water for drinking purposes at the doors of most of the householders. By means of mains this new supply has been connected with the old service pipes; but not before the system was filled with a strong solution of lime for three days, in accordance with the recommendation of Professor Dewar, were the householders advised to use the water for drinking purposes. In the same way the inhabitants were also enjoined not to use the water from the mains during this treatment. In spite of these precautionary measures confidence has not been completely restored, since I found that several tradesmen still showed a preference for the water brought round in carts. Thus, at some of the inns I inquired of the landlord what water he offered to his customers to mix with spirits. The reply was, invariably, the water conveyed by carts from the new wells. Doubtless, however, all diffidence will be removed and confidence re-established as soon as the results of Dr. Klein's analysis of the new supply taken from the old mains comes to hand. This report, I understand, is expected shortly, when, of course, the result will be declared publicly. In the meantime I am assured that the cases of typhoid fever in the town are now very few and not above the average of many other places.

Worthing, Feb. 2nd.

THE CHELSEA HOSPITAL FOR WOMEN.

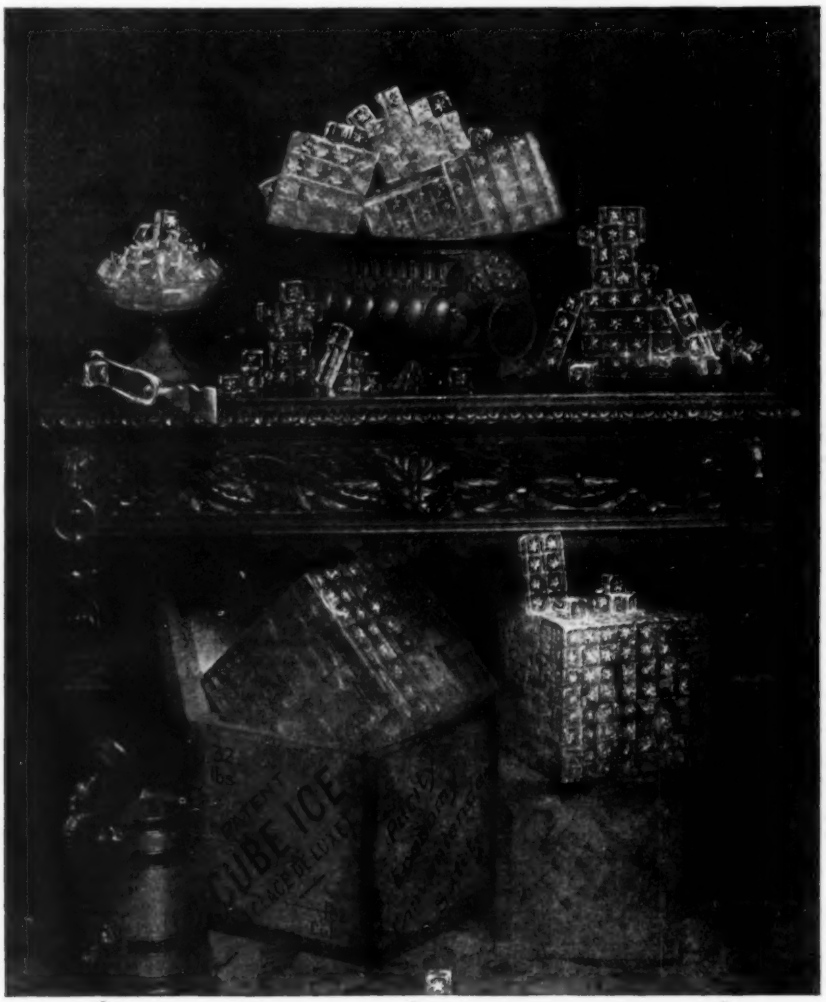
AT a meeting of the Chelsea vestry on Tuesday last Dr. Louis Parkes, the medical officer of health and public analyst for Chelsea, presented a report upon the sanitary condition of the Chelsea Hospital for Women which in more than one of its bearings was of a most serious character. In January Dr. Parkes made a minute inspection of the drains of the hospital which revealed such a highly unsatisfactory condition of affairs that he has deemed it to be his duty to recommend that the ordinary notices under the Public Health Act should be served on the governors, requiring them to place their institution in a state of thorough sanitary repair within two months, and that in the meantime the hospital should be prohibited for the reception of in-patients until such work has been performed to the satisfaction of the Chelsea vestry. But this, though serious enough, is not the part that reflects most strongly upon those responsible for the medical management of the institution.

"The mortality statistics," says the report, "of the hospital for the past year (1893) have also appeared to me to be unsatisfactory and to call for further explanation at the hands of the hospital authorities. The most important facts in connexion with these statistics, as furnished to me by the local registrar of births and deaths, are as follow:—The hospital has sixty beds, and 660 patients were treated in its wards (in-patients) in 1893. The total number of deaths in this year was thirty-six, of which number 21, or 58 per cent., were deaths consequent upon surgical operation. There were six deaths from septicæmia, or blood-poisoning, unconnected with operation, three of which were consequent upon miscarriage. Of the deaths consequent upon operation, two were stated to be due to septicæmia, ten to peritonitis, in six the actual cause of death is unstated, and in two it is ascribed to shock six days and four days after the operation. All these operations were undertaken with the object of removing either ovarian tumours, diseased ovaries and their appendages, tumours of the womb, or for the relief of prolapse of the latter organ. The aim of the majority of these operations, except those for the removal of ovarian tumours, is to mitigate pain and discomfort, and not primarily to save life, the diseased conditions for the relief of which such operative treatment is applied being for the most part chronic in their nature, and by no means tending to an early fatal termination. [In support of this statement Dr. Parkes appended to his report an analysis of the deaths consequent upon operation.] It is evident, therefore, that the question of the justifiability of such operations must arise, unless it is possible to reduce the risk of fatal issue from such operations to an extremely low figure. I have applied to the hospital authorities for authenticated details explanatory of those mortality statistics, but have not, so far, been favoured with any reply. I am very strongly of opinion that, in the interests of the public generally, an authoritative official statement should be forthcoming, setting forth the numbers of each distinct class of operation, the percentage mortality of each class, the actual cause of death in every case subsequent to operation, and the amount of permanent relief afforded in the cases not terminating fatally."

On the presentation of this report, which was unanimously adopted, it was moved, and also unanimously carried, that a copy should be forwarded to the Local Government Board and to the Home Secretary, and that the Home Secretary should be requested to order an inquiry into the past management of the hospital. Upon consideration of the serious nature of the report we do not think that the Chelsea vestry would have been well advised to do less.

"CUBE ICE."

ICE is employed for consumption with little discrimination by the public, since they have no means of judging of its purity and quality. It is needless to point out, for we have drawn attention to the subject many times previously, that just as it is imperative that water intended for drinking purposes should be of irreproachable quality, so also is it equally desirable that ice which is destined for admixture with beverages should be of precisely the same high degree of purity; nevertheless, there is reason to believe that the bulk of the ice imported into this country is liable to very objectionable contamination. Impurities, sometimes of a very repulsive kind, are to be found floating upon the surface of natural sheets of water, and as soon as frost sets in these impurities, derived for the most part from the draining of the contiguous shores and pastures, where it is not improbable that cattle graze, are captured or locked in the ice that is formed, in which state they remain without change until the ice is melted. As we have said, the public have no criterion upon which they can base an opinion as to the fitness of the article for consumption, nor is it easy to suggest any rules by which they could be guided on this point, for it is well known that even the ice obtained from dirty water possesses a seeming transparency and brilliancy which make it attractive, but which frequently lead to an error of judgment. An ingenious and, we think, a very important invention, especially when considered from a hygienic point of view, has however been recently brought to our notice which bids fair to offer a solution of the difficulty. In the course of some experiments Mr. Van der Weyde observed that ice at a temperature below freezing point when newly cut and left in contact adhered so strongly that it would not break in the same plane, whereas when exposed to a warmer temperature it would split at the originally cut planes with great ease; and so, with this extended knowledge of the interesting phenomenon of regelation first brought to light by Faraday and afterwards studied by Tyndall, Mr. Van der Weyde developed his invention as the outcome of its practical application. The phenomenon of regelation is the result of the action of capillary force at the boundaries of the film of water which connects the pieces placed in contact, producing an effect equivalent to attraction



The 32 lb. block under the table is composed of 1 oz. cubes; the 16 lb block of ½ oz. cubes; the ice on the table shows how it splits up for use.

between them, just as two plates of clean glass with a film of water between them seem to adhere. Ice being wetted by water the boundary of the connecting film is concave, and this concavity implies a diminution of pressure in the interior. The film accordingly exerts upon the ice a pressure less than atmosphere, and as the remote sides of the blocks are exposed to atmospheric pressure there is a resultant force urging them together and producing stress at the small surface of contact. Melting of the ice therefore occurs at the places of contact and the cold thus evolved freezes the adjacent portions of the water film, which, being at less than atmospheric pressure, will begin to freeze at a temperature a little above the normal freezing point.

Mr. Van der Weyde's invention consists of certain automatic apparatus of great simplicity, into which blocks of pure artificial ice are introduced in rapid succession, and from which they emerge still solid and structurally stronger, but possessing when rising in temperature the remarkable characteristic of automatically breaking up, when tapped with an ice chisel, into clear, clean-cut cubes of any convenient size, instead of splintering into fragments of all undesirable sizes and shapes. In addition it is provided that there shall be impressed on each individual cube the distinguishing mark of each authorised manufactory, thus affording a twofold means of identification. The cubical structure and the distinguishing mark on each cube can be seen through the whole block. This result, while materially increasing the value of the product, adds but very little to the cost of production, so simple is the machinery by which it is effected.

We have had an opportunity of examining in THE LANCET Laboratory a block of ice so produced and the results we obtained with it were really astonishing. It is necessary to allow the block to "warm" for a short time, so that the "cement" of ice loses its previously tenacious hold upon the small cubes into which the block is divided. When this stage is reached definite cubes of ice, we find, may be severed from the block by merely inserting the point of a penknife into the divisions. By an ingenious contrivance in the producing machinery, also, each cube so separable is impressed with a mark, which serves to indicate the origin of the ice and therefore to act as a guarantee of its purity. The stamps in the block with which we experimented consisted simply of a star and the impression was perfectly distinct on every cube. The invention is similar in its ingenuity and usefulness though not quite so simple in regard to its development as the device of perforating postage stamps; indeed, no better or simpler means of illustrating the structure of "cube ice" could be well quoted. Just as by purchasing a shilling's worth of stamps we obtain twelve single penny stamps which may be easily separated, so by procuring, say, 16 lb. of block ice (cube) we are able to divide it with the least possible trouble into 512 half-ounce cubes, or a 32 lb. block into 512 one ounce cubes (see accompanying illustration). The advantages thereby gained are obvious. It cannot be doubted, for example, that such a system is economical, there being a complete absence of waste from production of slush and splinters; and there is a symmetry about the cubes which makes them attractive and elegant. Above all, the adoption of this system is calculated to set at rest all misgivings in the consumer's mind in regard to the purity and quality of the ice of which he avails himself, because he will be free to insist on the ice being stamped and guaranteed. The value of a certificate of this kind is especially apparent when the case of invalids is considered.

The subject of the supply of pure ice for the metropolis has occupied our attention before, notably in a Commission, the results of the labours of which were published in THE LANCET of July 29th, 1893. At a future time we propose to publish the results of an examination and analysis of this cube ice procured in the open market, and if the evidence of analysis is in accordance with the claims at present made—and we have no reason to doubt them—then the injunction to "boil all ice" may be disregarded and in its place the public may be directed simply to see in future that it is stamped and guaranteed in such a way as to indicate that it has been made with water from an untainted and unpolluted source.

PROPOSED NEW INFIRMARY FOR PAISLEY.—At a meeting of the trustees of the late Mr. W. B. Barbour, formerly parliamentary representative of Paisley, it was agreed to vote £15,000 for the erection of a new infirmary for that town

THE OPHTHALMOLOGICAL SOCIETY AND SCHOOL OPHTHALMIA.

To the Editors of THE LANCET.

SIRS,—At the recent meeting of the Ophthalmological Society the discussion on my paper on School Ophthalmia was adjourned and I was requested to formulate some propositions and definitions which might assist the debate. These I now send to you, as their early publication will be of advantage in facilitating their deliberate consideration and may also be the means of eliciting valuable expressions of experience from some who are not members of the society. I am sorry that they have extended to much greater length than I had intended. I am, Sirs, yours truly,

JONATHAN HUTCHINSON.

Cavendish-square, W., Feb. 5th, 1894.

PROPOSITIONS, DEFINITIONS OF TERMS, &C., IN REFERENCE TO SCHOOL OPHTHALMIA.

1. That the contagious ophthalmia which has recently prevailed to a greater or less extent in certain high-class schools is precisely the same malady as that which in pauper schools has long been recognised as the origin of trachoma.

2. That the reason why but few cases of trachoma have resulted from these outbreaks is that efficient treatment has been adopted.

The epidemic I referred to in my paper as having recently occurred at —— School was, excepting in that the cases were of somewhat minor severity, precisely the same in character as that on which I reported in 1866 as then present in the Brentwood Pauper Schools.[1]

3. Not a few of the cases at —— School had persisted for several months and after a certain amount of treatment. Many relapses had occurred, and in some instances after medical certificate that the cure was complete.

4. Neglect isolation, and school ophthalmia will spread through the establishment.

5. Neglect the local treatment of school ophthalmia and a certain number of trachoma cases or "workhouse ophthalmia" will be the result.

6. A certain number of protracted trachoma cases have already resulted from ophthalmia epidemics in the middle-class schools and a far larger proportion of cases would have passed into this stage had it not been for careful treatment.

7. It is a feat of clinical imagination merely to conceive that there are two forms of epidemic follicular ophthalmia, one of which has no tendency when neglected to end in trachoma.[2]

8. "Follicular conjunctivitis" or "follicular ophthalmia" are names for the early stage of granular lids. This stage is characterised by general enlargement of the normal follicles and often of the papillæ also.

9. It is admittedly extremely difficult to say in slight cases whether enlarged follicles are a personal peculiarity or an evidence of disease.

10. "School ophthalmia" is a name for a contagious and often very brief form of conjunctivitis, which, if neglected, may in certain cases produce granular lids.

11. "Workhouse ophthalmia" is a name for advanced cases of granular lids (trachoma). It is always initiated by an attack of school ophthalmia.

12. The disease known conventionally as catarrhal ophthalmia, which often runs through families and is attended by patchy congestion of the ocular conjunctiva, may be the same disease as school ophthalmia.

13. School ophthalmia is, however, rarely attended by much congestion of the ocular conjunctiva.

14. The initial attack is usually easily and completely cured by local treatment.

15. The second stage, follicular ophthalmia, is usually curable by efficient treatment perseveringly used for a month or two.

16. The third stage, that of trachoma, when the conjunctiva is thickened and the follicles extensively implicated, is curable with great difficulty, is very liable to relapse, and often requires a treatment extending over years.

17. In all stages those who suffer from granular lids are liable to relapse and to become sources of danger from contag on.

[1] See Ophthalmic Journal, vol. v., p. 314.
[2] Nettleship: Diseases of the Eye, p. 88.

18. The danger of contagion is probably in proportion to the amount of puro-mucous secretion. During conditions of dry eye, with little or no secretion, such cases are probably but little dangerous.

19. School ophthalmia by no means always leads to granular lids. On the contrary, a very large majority of its subjects recover completely; such recovery is almost universal under efficient treatment.

20. There is, however, always a risk that school ophthalmia may, if neglected, and in certain constitutions, run on into granular lids.

21. Conversely, cases of granular lids are in all stages, if temporarily attended by discharge, liable to become sources of epidemics of school ophthalmia.

22. It is probable that all epidemics of contagious ophthalmia in schools are the same in kind, although they may, in accordance with the general laws of epidemics, differ widely in severity of type.

23. The tendency to the development of granular lids after an attack of school ophthalmia probably depends much upon the race-descent, structural endowments, and state of vigour of the patient.

24. All cases of trachoma have been preceded, in the first instance, by an attack of conjunctivitis due to specific contagion.

25. The initial attack of conjunctivitis is in its nature transitory. It is often slight and lasts for only a week or ten days.

26. After the initial attack the conjunctiva of the globe may resume a normal condition whilst changes are going on insidiously in the follicles and papillæ.

Memoranda for the Guidance of School Authorities.

A certificate of freedom from ophthalmia should always be required on the return of a pupil to school (as is already the case in reference to tinea and some other maladies).

In the case of anyone suffering from "sore eyes" isolation should be immediately adopted and advice obtained.

If in any case relapses occur and granular lids are developed the isolation and treatment ought to be prolonged and the pupil ought not to be allowed to return to school.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns 6604 births and 4012 deaths were registered during the week ending Feb. 3rd. The annual rate of mortality in these towns, which had declined from 28·5 to 20·7 per 1000 in the preceding three weeks, further declined last week to 20·0. In London the rate was 19·4 per 1000, while it averaged 20·4 in the thirty-two provincial towns. The lowest rates in these towns were 13·3 in Blackburn, 13·8 in Leicester, 14·4 in Croydon, and 15·8 in Derby; the highest rates were 23·8 in Hull, 25·2 in Birkenhead, 27·4 in Bristol, 27·9 in Plymouth, and 29·2 in Liverpool. The 4012 deaths included 451 which were referred to the principal zymotic diseases, against 497 and 480 in the preceding two weeks; of these, 158 resulted from whooping-cough, 109 from diphtheria, 54 from measles, 45 from scarlet fever, 41 from "fever" (principally enteric), 34 from diarrhœa, and 10 from small-pox. No fatal case of any of these diseases occurred in Derby or in Halifax; in the other towns they caused the lowest death-rates in Brighton, Blackburn, Leicester, and Gateshead, and the highest rates in Cardiff, Birkenhead, Bristol, and Plymouth. The greatest mortality from measles occurred in Wolverhampton, Norwich, Birkenhead, and Burnley; from scarlet fever in Burnley; from whooping-cough in Plymouth, Bristol, Cardiff, Swansea, and Bolton; and from "fever" in Swansea. The 109 deaths from diphtheria included 74 in London, 4 in Liverpool, and 3 each in Manchester, Salford, Sheffield, and Newcastle-upon-Tyne. Five fatal cases of small-pox were registered in Birmingham, 2 in West Ham, 1 in London, 1 in Bradford, and 1 in Gateshead, but not one in any other of the thirty-three large towns. There were 81 cases of small-pox under treatment in the Metropolitan Asylum Hospitals and in the Highgate Small-pox Hospital on Saturday last, the 3rd inst., against 88, 82, and 78 on the preceding three Saturdays; 17 new cases were admitted during the week, against 14 and 17 in the preceding two weeks. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital, which had been 2733, 2645, and 2533 at the end of the preceding three weeks, had further declined to 2491 on Saturday last; 245 new cases were admitted during the week, against 246 and 235 in the preceding two weeks. The deaths referred to diseases of the respiratory organs in London, which had declined from 762 to 422 in the preceding three weeks, further fell to 385 last week, and were 116 below the corrected average. The causes of 66, or 1·7 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Cardiff, Oldham, Sunderland, Newcastle-upon-Tyne, and in six other smaller towns; the largest proportions of uncertified deaths were registered in West Ham, Birmingham, Nottingham, and Salford.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had declined from 23·8 to 21·0 per 1000 in the preceding three weeks, was again 21·0 during the week ending Feb. 3rd, and was 1·0 per 1000 above the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 14·2 in Greenock and 17·5 in Edinburgh to 23·7 in Paisley and 41·0 in Perth. The 600 deaths in these towns included 43 which were referred to whooping-cough, 13 to diarrhœa, 11 to scarlet fever, 8 to diphtheria, 5 to "fever," 1 to measles, and not one to small-pox. In all, 81 deaths resulted from these principal zymotic diseases, against 59 and 79 in the preceding two weeks. These 81 deaths were equal to an annual rate of 2·8 per 1000, which slightly exceeded the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of whooping-cough, which had been 24 and 51 in the preceding two weeks, declined again to 43 last week, of which 23 occurred in Glasgow, 6 in Perth, 4 in Dundee, and 4 in Aberdeen. The deaths from scarlet fever, which had been 9 and 3 in the preceding two weeks, rose again to 11 last week, and included 8 in Glasgow. The 8 fatal cases of diphtheria exceeded by 2 the number in the preceding week, and included 5 in Glasgow and 2 in Edinburgh. The deaths referred to different forms of "fever," which had been 5 and 3 in the preceding two weeks, rose again to 5 last week, of which 4 occurred in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had been 150 and 133 in the preceding two weeks, further declined to 128 last week, and were 31 below the number in the corresponding period of last year. The causes of 50, or more than 8 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 30·9 and 32·4 per 1000 in the preceding two weeks, further rose to 33·6 during the week ending Saturday, Feb. 3rd. During the past five weeks of the current quarter the death-rate in the city has averaged 33·3 per 1000, against 23·4 in London and 19·4 in Edinburgh. The 225 deaths registered in Dublin during the week under notice showed an increase of 8 upon the number in the previous week, and included 20 which were referred to the principal zymotic diseases, against 25 and 23 in the preceding two weeks; of these, 10 resulted from whooping-cough, 3 from measles, 2 from scarlet fever, 2 from "fever," 2 from diarrhœa, 1 from diphtheria, and not one from small-pox. These 20 deaths were equal to an annual rate of 3·0 per 1000, the zymotic death-rate during the same period being 2·6 in London and 1·5 in Edinburgh. The deaths referred to whooping-cough, which had been 12 and 11 in the preceding two weeks, further declined to 10 last week. The fatal cases of measles, which had been 3 in each of the preceding two weeks, was again 3 last week. The 2 deaths from scarlet fever also corresponded with the number in the previous week. The deaths referred to different forms of "fever," which had been 5 and 4 in the preceding two weeks, further declined to 2 last week. The 225 deaths registered in Dublin last week included 33 of infants under one year of age, and 66 of persons aged upwards of sixty years; the deaths of infants showed a decline, while those of elderly persons exceeded those recorded in recent weeks. Six inquest cases and 5 deaths from violence were registered; and 55, or nearly a fourth, of the deaths occurred in public institutions. The causes of 20, or nearly 9 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

MOVEMENTS OF THE MEDICAL STAFF.

SURGEON-CAPTAIN MELVILLE and Surgeon-Lieutenants Pilcher and Johnson have embarked for India on service. Surgeon-Captains Newland and Bent have arrived from India on completion of a tour. Surgeon-Captain Heuston, having accepted an appointment under the Chinese Government, has left England to take up his new duties. Surgeon-Captain Fowler has arrived home from Halifax on completion of a tour. Surgeon-Captain Marder has been posted to the Western District on return from foreign service. Surgeon-Major Sharpe has embarked for the West Coast of Africa, and Surgeon-Captain Black has been posted to the Curragh. Surgeon-Major McSwiney has resumed his duties in the North-Western District on return from leave.

ARMY MEDICAL STAFF.

In consequence of the recent retirement of Surgeon-Major-General Frederick William Wade, Surgeon-Colonel C. H. Giraud, Principal Medical Officer of the Eastern District, obtains promotion to the rank of Surgeon-Major-General.

INDIA AND THE INDIAN MEDICAL SERVICES.

Surgeon-Lieutenant-Colonel Edward Reginald Johnson is appointed to be Brigade-Surgeon-Lieutenant-Colonel, vice Brigade-Surgeon-Lieutenant-Colonel S. C. Mackenzie, M.D., deceased. Surgeon-Captain W. E. Jennings, M.B., C.M., is appointed to act as Civil Surgeon, Panch Mahals, during the absence of Surgeon-Major K. H. Mistri. Surgeon-Major J. McCloghry, F.R.C.S.I., is appointed to act as Civil Surgeon, Ahmadabad, during the absence of Surgeon-Lieutenant-Colonel M. L. Bartholomeusz, M.B., C.M. Surgeon-Colonel T. Walsh, M.S., having been nominated to succeed Surgeon-Major-General T. N. Hoysted, who retires from the 11th inst., is appointed Principal Medical Officer, Madras Army. The services of Surgeon-Captain T. C. Moore are replaced at the disposal of the Military Department from date of relief at Coconada by Surgeon-Major J. C. Marsden. Surgeon-Major J. A. Cunningham, Civil Surgeon, Simla, has obtained privilege leave of absence for three months.

NAVAL MEDICAL SERVICES.

The following appointments are announced: Surgeons: Joseph C. Wood, to the *Pheasant*; S. W. Johnson, M.B., to the *Pembroke*, additional; W. J. Bearblock, to the *Severn*; G. A. S. Ball, to the *Victor Emanuel*; S. J. Oddie, to the *Vivid*; and E. F. Mortimer, to the *Albacore*.

VOLUNTEER CORPS.

Engineer: 1st Lanarkshire: Brigade-Surgeon-Lieutenant-Colonel S. J. Moore, M.D., resigns his commission as Surgeon-Lieutenant-Colonel; also is permitted to retain his rank as such, and to continue to wear the uniform of the Corps on his retirement.—*Rifle:* 1st Volunteer Battalion, the Prince Albert's (Somersetshire Light Infantry): Frederick Lace, Gent., to be Surgeon-Lieutenant.—2nd Volunteer Battalion, the Worcestershire Regiment: Lieutenant Percy Austin Roden is appointed Surgeon-Lieutenant.—4th Volunteer Battalion, the Hampshire Regiment: William Herbert Lister Marriner, M.B., to be Surgeon-Lieutenant.—1st Volunteer Battalion, the Highland Light Infantry: Surgeon-Lieutenant H. Kelly, M.B., to be Surgeon-Captain.

THE SANITARY CARE OF THE SOLDIER BY HIS OFFICER.

Surgeon-Lieutenant-Colonel Evatt gave a lecture on the 29th ult. at the Royal Artillery Institution, Woolwich, on the above subject. The lecture was a very long one and embraced a large number of topics connected with the hygiene, daily life, habits, and personal comfort of the soldier. Some of the points taken up and discussed were such, however, as scarcely come within the power of the soldier's officer, to alter or amend, as they are matters of regulation and involve financial considerations. With regard to the provision of dining-rooms in barracks and better arrangements for the soldier's personal cleanliness there is no doubt room for improvement. The baths that are provided in barracks are generally most uninviting places and are consequently comparatively little used. It cannot be reasonably expected that the soldier during the winter in this climate will make use of a bath supplied only with cold water; indeed, if he has served in hot climates, as so many soldiers have, a cold bath, followed by exposure to wind and weather in crossing from the bath-house to barracks, cannot be taken without some risk to health. There should be some provision for the supply of warm water, and every soldier should have an opportunity of having a warm bath at least once a week. As regards the present pattern "guard bed," again, we think that it should be abolished in favour of something better. The feeding of the soldier has been greatly improved of late by the Aldershot system of cooking and messing. The time fixed for the soldier's meals—especially in India and subtropical climates—might be altered with advantage to his health and comfort, but this is attended with difficulty: the soldier is very conservative; he will not alter the habits to which he has been accustomed and which are those of the class of life in which he has been brought up. A late dinner, for example, we have been told would be an unpopular measure in India. Medical officers have at different times urged a large number of reforms in the army and hardly anything can be brought forward that has not been suggested before. The improvement that has taken place in the soldier's condition in all respects since the date of the Crimean War has, we are bound to say, been very great. Unfortunately a change which in itself may appear to involve an insignificant expense when it comes to be repeated in its application to the whole army represents in the aggregate a considerable outlay. Still sanitary reformers must keep on "pegging away" until reforms are carried out and beneficial changes effected. There is no finality in these things. The newest style of barracks and the married soldiers' quarters are a great improvement, but we hope to see, among other things, dining-halls introduced and better arrangements made for the personal cleanliness of the soldier by an increased and improved system of bath and ablutionary accommodation supplied with warm water.

RECRUITING IN 1893.

Upwards of 41,000 recruits were passed into the service in 1892, which was an unprecedented yearly total. The number of recruits raised last year (1893) was over 35,000. The total number of effectives serving at present with the colours is larger than in previous years, numbering altogether at home and abroad on Jan. 1st last 220,000 of all ranks. As regards the physique of the men, the *Army and Navy Gazette* states that, as far as the Foot Guards are concerned, the average height of the men in one company of Guards is 6 ft. 2 in., and alleges that the Foot Guards are at the present time in as fine a condition as ever they were in respect of physique. We do not believe, however, that the same can be said in regard to the infantry generally. We know that it has always been the case for exaggerated complaints to be made of the physical standard of army recruits, but we fear that many lads are passed into the army under the present regulations in regard to standard who are not really likely to turn out strong and effective soldiers, and who will probably prove an encumbrance rather than otherwise to a force engaged in hard marching and fighting. The *Army and Navy Gazette* favours the view of all recruits being allowed to enlist in the first instance for three years only with the colours, with the option of subsequently re-engaging for longer periods, and considers that such a system would tend to popularise the army.

THE CONDITION OF GARRISON TOWNS.

Our contemporary the *St. James's Gazette* announces that the Duke of Cambridge, as Commander-in-Chief of the British Army, has come to the conclusion, after careful consideration of the subject of the moral condition of certain seaport and garrison towns which has been brought to his notice, that considerable improvement might be effected by some resolute effort at amelioration and a recourse to the powers given by existing statutes. The Adjutant-General, Sir Redvers H. Buller, has accordingly addressed the generals commanding the different military centres, calling attention to the powers given to local authorities by the provisions of the Criminal Law Amendment Act of 1885, and also by the Licensing Acts, and requests commanding officers to confer with the magistrates and local civil authorities and to coöperate with them in a serious effort to "free the towns from the reproach attaching to them by determined police action and by enforcing the provisions of the Act in question."

DEATHS IN THE SERVICES.

Surgeon-Major Nathaniel Hopkins, late of the Bombay Army, died at 9, Berkeley-place, Wimbledon, on the 24th ult., at the age of sixty.—Deputy-Inspector-General of Hospitals and Fleets Thomas Somerville, R.N., died at Straithview, Lanark, on the 23rd ult. The deceased officer

entered the navy in 1837, obtained his promotion to Staff-Surgeon in January, 1846, Fleet-Surgeon, 1861, and retired as honorary Deputy-Inspector-General of hospitals and fleets in October, 1868.

Some cases of cholera have occurred in the Emigration Depot at Cassimode, Madras; but Surgeon-Major C. M. Thompson considers that they have all been imported and are sporadic cases.

On Feb. 6th 170 invalids were admitted to the Royal Victoria Hospital, Netley; they were brought home from India in H.M.S. *Serapis*.

Correspondence.

"Audi alteram partem."

"THE AFTER-EFFECTS OF CHLOROFORM."

To the Editors of THE LANCET.

SIRS,—The paper published by Dr. Guthrie in the last two numbers of THE LANCET on the "After-effects of Chloroform in Children" is of very great interest and importance and is so learned and carefully thought out that I have the greatest hesitation in saying anything about it. At the same time, as several of the cases were under my care, I should like to state, for what they are worth, my recollections of the cases and the conclusions that I came to at the time, without entering into a criticism of Dr. Guthrie's paper; and I may say at once that I cannot even now agree with his conclusions that the fatal results were due to after-effects of chloroform. Speaking only of my own cases, the one narrated as Case 3 has always been, to my mind, a clear instance of carbolic poisoning. I had arranged to perform the operation on this patient on a Tuesday, but was prevented from getting to the hospital, and it was accordingly deferred till the next day. In the meantime, on the Tuesday, carbolised cloths had been applied to the skin for two hours, and as a result the child suffered from marked symptoms of carbolic poisoning—viz, vomiting, carboluria, &c. This was not mentioned to me at the time of the operation; indeed, I did not know of it till after the patient died, otherwise I should certainly have avoided any further use of carbolic acid. I looked on Case 4 as one of fat embolism, but it may also be referred to carbolic acid. Here there was no question of shock, the actual operation only lasting for a few minutes; the hour of which Dr. Guthrie speaks was in large part taken up by him in getting the patient completely under the anæsthetic and in part in the disinfection of the skin and the careful arrangement of the splints subsequently to operation. The child's condition next morning did not give rise to any anxiety, and though she was somewhat dull, and had still a little sickness, she was so well in the afternoon that the house surgeon, who was a most capable and careful man, went out for the evening, never suspecting that there was any danger. I was summoned about 8 P.M. because the patient had suddenly passed into a very collapsed state, being somewhat cyanosed and unconscious. I cannot here exclude carbolic poisoning, but the conclusion I came to at the time, when the case was fresh in my mind, was that the fatal result was more likely to be due to fat embolism; the late onset of the symptoms is quite in accord with such a history. As to Case 7, it is excessively difficult to understand why the patient died; and apparently there was no reason to account for his death. When the house surgeon saw him at 1 A.M. he noticed nothing wrong, but, to his amazement, he was summoned half-an-hour later and found the patient dead. At the time I could only think that the state of the patient's kidneys and the use of the carbolic acid were to blame for the result. In Case 9 I see no reason for supposing that the death was due to sublimate poisoning; there were no symptoms of it, no pressure was used in irrigating the sac, and it was apparently thoroughly emptied afterwards. Here, again, death was quite sudden, the patient having recovered apparently completely from the operation. In this case I did not use carbolic acid and fell back on fat embolism as the most probable explanation; and certainly, when it is remembered that quite a number of cases of tuberculous meningitis have followed more or less immediately on scraping out glands, joints, &c. there is no reason why one should not have fat emboli as well as emboli of tuberculous material.

I may say that, unfortunately, in none of these cases were either the lungs or the brain examined microscopically, and thus the question of fat embolism remains, as do Dr. Guthrie's views, purely theoretical. The cries, on which Dr. Guthrie lays so much stress, were not to my recollection in any way unusual or unlike those often met with in young children after operations or when feeling ill, and the gentleman who was house surgeon at the time when several of the cases occurred fully agrees with me in this. To sum up, the first case was, I feel sure, one of carbolic poisoning; the second and third were probably the same, but in the second I cannot exclude fat embolism; the fourth was, I think, probably fat embolism. It is a remarkable fact that the first three cases all occurred at a time when we were using carbolic acid very freely, and they led me thenceforth to be extremely careful in its use in children; in fact, except for short purification of the skin, I do not employ it in children. And since I made that change I have had no more of these mysterious deaths—a point, to my mind, of the strongest significance in favour of that view as against Dr. Guthrie's. I may also add that, though these were the only fatal cases, we had in one or two others at that time somewhat similar symptoms which disappeared on changing the carbolic for mercurial dressings. I do not, of course, deny the existence of serious and fatal effects after anæsthetics; indeed, I believe they are not uncommon, especially after ether. In fact I think that, if the after-effects of ether are taken into sufficient consideration there will not be much to choose between it and chloroform in point of view of danger. I would even go so far as to say that if the use of chloroform were entirely prohibited, as was at one time strongly hinted at in some of the journals, and if ether were used in all instead of only in suitable cases, as at present, its death-roll (including its after-effects) would be as great as, and probably greater than, that of chloroform.

I am, SIRS, yours faithfully,

Harley-street, W., Feb. 5th, 1894. W. WATSON CHEYNE.

THE CORONER'S COURT.

To the Editors of THE LANCET.

SIRS,—I would like, with your permission, to state a case of hardship which, in times such as the present, is felt to be no ordinary injustice. On the morning of the 31st ult., at 7 30, I was called to see a man who was found lying in a pool of blood upon the kitchen floor of his house. I proceeded at once to examine him and found that the man had cut his throat with a table-knife, completely severing his larynx, injuring the œsophagus, and playing havoc with the tissues on each side of his neck; he was unconscious and pulseless. I sent for the police and for hours did what I could for him. About three o'clock in the afternoon he had rallied sufficiently to be sent to the union infirmary, which I considered the wisest course, as the man was most destitute; he died on Feb. 3rd, having lived for eighty-four hours. My grievance is, firstly, the refusal of the police to grant me a medical aid certificate, though I am the divisional surgeon's deputy, on the ground that they did not call me, I maintaining that the case from the first was a police case and that, its being an urgent one, I had no right to wait for an order from them; in fact, had I delayed many minutes, life would have been extinct on my arrival. My second grievance is that at the inquest held at the infirmary the coroner did not summon me as a witness. Surely, SIRS, I am not complaining unnecessarily when I say that, both by the police and by the coroner, I have not been dealt with justly? I air my grievance through your columns, as complaints made to the authorities only receive the usual stereotyped replies, and as affording an instance of how the hard-worked practitioner does not receive much consideration even from those who ought to know better.—I am, SIRS, yours faithfully,

Mitcham, Feb. 6th, 1894. HENRY LOVE.

"EXPERIMENTAL DEGENERATION OF THE PYRAMIDAL TRACT."

To the Editors of THE LANCET.

SIRS,—As the last sentence of Professor Sherrington's note on Degeneration of the Spinal Cord and elsewhere consequent on lesions of the cortex cerebri in monkeys may possibly be misconstrued, it appears only just to Dr. Mellus, who is conducting the work referred to by Professor Sherrington, and who is unfortunately abroad, that the following

facts should be also made known. Some years ago, recognising the very great importance of the subject, I suggested to Professor Sherrington that he should undertake the research in question, and I detailed the plan of the investigation. As Professor Sherrington says in his note, he began the experiments, but failed to obtain reliable results. In consequence of this he informed me later that he had abandoned the research and had taken up other work. Feeling, however, the necessity of having the point cleared up, I told Dr. Mellus last year that, as Professor Sherrington had given up the subject, he had better undertake it. This he did and speedily brought the matter to a successful conclusion. The Royal Society have now had his preliminary paper in their possession for about two months. Of course, as a matter of ordinary courtesy, I wished to inform Professor Sherrington when Dr. Mellus began his research. This I intended doing at the first opportunity—viz., at the first meeting of the Physiological Society—but as I was suddenly prevented from attending the meeting I asked Professor Boyce to tell him for me. Although some months have elapsed since Professor Boyce's conversation with Professor Sherrington, no notice of his having again taken up the work reached either Dr. Mellus or myself till the day of publication of your last issue. I need hardly say that, had Dr. Mellus and myself received the least intimation of such a thing, I would have arranged for a common publication of the two papers, as there is no question of priority since Muratoff's well-known researches.

I am, Sirs, yours truly,

Feb. 7th, 1894. VICTOR HORSLEY.

"THE MORTALITY FROM CANCER."

To the Editors of THE LANCET.

SIRS,—The following points occur to me after perusing the valuable paper upon the mortality from cancer noticed in your last issue. It appears that at Frankfort between 1860 and 1889 the mortality amongst females from accessible or easily diagnosed cancer remained stationary, whilst that from inaccessible cancer difficult of diagnosis increased considerably. These facts are doubtless a strong argument in favour of the theory held by Mr. King and Dr. Newsholme that the increase in the registered mortality from cancer is not real but is due to improved diagnosis and more careful registration. If this theory be correct the curve representing the true yearly mortality through any length of time from cancer would be a horizontal right line. But, turning to the curves given in the writers' paper representing the British registered cancer mortality, we find them to be all inclines, most of them having increasing gradients. These curves, although the registered mortality has more than doubled in the thirty years, show no signs of converging towards a horizontal right line, and on Mr. King's and Dr. Newsholme's theory, therefore, the British statistics are so inaccurate as to make them quite useless for the writers' purposes. If, however, we give the British figures more credence than Mr. King and Dr. Newsholme seem disposed to do, seeing that the cancer curves given in the paper are inclines and on the whole show a tendency to tilt upwards, we should infer that the true curves were inclines to which Mr. King's and Dr. Newsholme's are approximatory, and that cancer had really increased, although this increase might be exaggerated from faulty diagnosis and registration. The Frankfort figures no doubt are opposed to this view, but they are not very numerous—only twenty-seven cases on the average dying annually, for instance, of accessible cancer. The British figures do not seem to be sufficiently accurate to determine with any precision the relative increase in cancer according to sex: the Scotch male and female curves converge, the English run parallel, and the Irish slightly diverge. The exact parallelism of the English male and female curves is very striking, but, considering the known inaccuracy of British registration, this must depend to some extent upon coincidences; at any rate, I fail to see how it can have any significance on Mr. King's and Dr. Newsholme's theory, for we have seen that none of these curves have even begun to approach the true ones. The general impression left in one's mind after studying the writers' paper is one of regret that our record should be so imperfect that, in spite of the extensive labours and masterly methods brought to bear upon their subject, they have been unable to arrive at a result which would be received without question.

I am, Sirs, yours truly,

Feb. 6th, 1894 THOS GLOVER LYON

MEDICAL DEFENCE AND PROTECTION.

To the Editors of THE LANCET.

SIRS,—In THE LANCET of the 3rd inst. there is a statement which—of course quite unintentionally on your part—may mislead some of your readers. This statement is in the last sentence but one of your annotaion headed "The Medical Defence Union," and it reads thus: "If the Medical Defence Union could see its way clear, by any little concessions in return for other little concessions, to amalgamate with the London and Counties Medical Protection Society, the joint value to the medical profession of the two bodies working as one would certainly be more than double the sum of their separate efforts." I venture to say that no unprejudiced person who is familiar with the facts of the case could name even one point in the recent and futile negotiations for the amalgamation of these two societies upon which it was reasonably possible for the London and Counties Medical Protection Society to have gone further than it went in the direction of concession. This we did not for the sake of the amalgamation of our society with the Medical Defence Union, but because we were ready to sacrifice much for the sake of securing to the medical profession the very great advantages which can come to it only when it has, within itself, one large and powerful society whose first duty will be to defend its members against unjust attacks upon their professional reputation and interests. It was to secure this great good for our profession that the delegates of the London and Counties Medical Protection Society entered upon the negotiations for amalgamation with the Medical Defence Union; it was with that object in view that they carried on the negotiations. These efforts to bring about amalgamation were ended, not by the refusal of any demand which was made upon the London and Counties Medical Protection Society by the Medical Defence Union, but because the latter would not submit their office-bearers to a measure of scrutiny which they themselves proposed to apply to the office-bearers of the former.—I am, Sirs, yours truly,

G. A. HERON,
Treasurer of the London and Counties Medical Protection Society.

Feb. 5th, 1894.

To the Editors of THE LANCET.

SIRS,—We are glad to find that the report of the Medical Defence Union meets with your approval. With regard to your suggestion as to the advisability of amalgamation with similar societies, everyone will agree. There is one very simple way by which this desire could be accomplished without any further difficulty. Let the members of junior societies resign and apply for membership to the senior society. The desired end would then be accomplished very quickly and without further trouble. It is difficult to understand why new medico-legal societies should be required when the Union has done such good work, or why, when formed, those responsible for their formation should try to force amalgamation, with its many difficulties. "Union is strength," and the Medical Defence Union does not belie its name. It is a sad commentary on the progress of the profession that the moment a society is doing good work, other societies should spring up on similar lines, instead of the profession concentrating its efforts on that originally formed.

I am, Sirs, yours truly,

Longridge-road, S.W. A G. BATEMAN.

"THE MEDICAL REPORTS OF THE METROPOLITAN ASYLUMS BOARD."

To the Editors of THE LANCET.

SIRS,—I have read with much interest the leading article on the above subject which appeared in THE LANCET of the 3rd inst. It struck me very early that the compulsory notification of infectious diseases would operate in two ways, and as time has passed I have been more and more convinced of this. Formerly the medical attendant gave advice and took trouble to ensure the complete isolation of infectious cases while doing all in his power to prevent any spread of the disease. Now in cases requiring special care as regards isolation, &c —I refer, of course, to those arising amongst the poorer classes—the medical attendant in five instances out of six prescribes for his patient, walks out of the house, and on his return home sends his half-crown's worth to the medical officer of health. I have

known a medical officer to a public institution affirm that it is not now his business to advise or take any trouble in preventing the spread of infectious diseases, even in the institution with which he is connected, beyond giving notice to the medical officer of health. To use your words, it is clear that "the Notification Act is not going to ..... accomplish the result of curtailing the proportion of epidemics as has been expected."

I am to a certain extent an advocate for isolation hospitals, but to a certain extent only. In this union, where we are continually meeting with diphtheria, scarlet fever, smallpox, &c., whether imported or from sources which I need not now enter into, I have for many years adopted a very simple but at the same time what has proved to be a most efficacious plan for staying the spread of the disease. It is that directly notification is received a reliable man is engaged by the sanitary inspector to act as watcher and messenger to the inmates of the infected cottage, which is, as it were, made an isolation hospital for the time being. This messenger goes to shop, supplies disinfectants, buries dejecta, but never enters the infected house. Excepting one instance—and I speak of many hundreds of cases—I have never known the disease to spread from the infected centre. Experience has proved that the scheme answers equally well whether it is in an isolated country cottage or in more populous places. I am of opinion that if this plan had a fair trial in towns it would have a far larger share of success than the crowding together of infectious cases in a hospital. I would limit the removal of patients to a hospital to those houses occupied by two or more families, where isolation would be impracticable. The most difficult of these diseases to stamp out is undoubtedly scarlet fever, but I have found that if oiling the body is only commenced in the early stages and the scheme suggested rigorously carried out any spread of the complaint need not be much feared. While disinfecting as much as possible I have never hesitated to order the burning of infected articles, and I have never experienced any difficulty in having the owners allowed for the same or having them replaced.

I am, Sirs, yours truly,

C. J. DENNY,
Medical Officer of Health.

Blackwater, Feb. 6th, 1894.

"OBSTETRIC AND GYNÆCOLOGICAL NURSING."

To the Editors of THE LANCET.

SIRS,—I have no wish to trespass further on your patience by protracting a controversy with the reviewer of "A Handbook of Obstetric and Gynæcological Nursing" on a matter of interest chiefly to myself. Through your courtesy I have been afforded an opportunity, for which I thank you, of stating my complaint. To that he has replied and has reiterated—though, as I venture to think, he has not succeeded in proving—the accusation of my insufficient recognition of the importance of asepsis and antiseptics in ordinary midwifery practice. As we each adhere to our own contentions the matter may, I think, be best left to the impartial judgment of your readers, who have both our statements before them.

I am, Sirs, yours truly,

THOS. MORE MADDEN.

Merrion square, Dublin, Feb. 3rd, 1894.

"OPIUM IN INFLUENZA."

To the Editors of THE LANCET.

SIRS,—Dr. Wilks' letter on the value of opium in influenza, which appears in the present issue of THE LANCET, encourages me to speak of its very great success in my own experience. In the early weeks of 1892, when I was treating about 100 cases a week, and in all the partial epidemics since, I have uniformly given ten drops of tinct. chlorof. c. morph. every four hours till the pains were gone, and strychnine, with hydrochloric acid, and a little iron after as a tonic. This treatment has proved so uniformly successful that I cannot recall the loss of a single patient from influenza. I had special opportunities for testing its value in having then under my care (1891–1892) the employés of two large houses of business, in neither of which a single life was lost, whereas deaths occurred in two other houses in the neighbourhood under the same conditions. I should not have recorded these facts now but that, justified by the experience of Dr. Wilks, I felt that further practical evidence as to the value of opium would be of value.

I am, Sirs, yours truly.

A. T. SCHOFIELD, M.D.

Westbourne-terrace, Hyde-park, W., Feb. 5th, 1894.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

Ladies' Health Society.

THE annual meeting of this, one of the oldest and best of all the societies for the amelioration of the condition of the poor, was held on Tuesday last, in the Manchester Town-hall, under the patronage of the Lord Mayor and Lady Mayoress. The report, which was presented by the honorary secretaries, gave evidence of an enormous amount of good work in the oldest and most crowded districts of the city, and, what is of great importance, the several lady superintendents gave particulars of the adverse conditions obtaining in their districts, with copious extracts from the reports of their district visitors, suggesting in each individual case the appropriate remedy. It is to be hoped that the corporation will take notice of these reports and that they will take immediate steps to remedy the scandalous abuses which are therein brought to notice. As is usual with societies of this kind, the annually recurring difficulty is that of obtaining the necessary funds to carry on the work. The society consists of about thirty ladies, who work in connexion with the Manchester and Salford Sanitary Association, on the one hand, and with the medical officer of health, on the other. It employs fourteen female health visitors, eight of whom are paid by the society and six by the Manchester corporation. It deserves far greater and more generous support than it receives, and, as one of the speakers at last week's meeting observed, the contribution which it annually receives from the well-to-do classes of Manchester is altogether unworthy of this great and opulent community.

The Tramp Question.

The three boards of guardians, whose jurisdictions are conterminous, or nearly so, with the enlarged city of Manchester, have recently been discussing the terms of the recommendation first submitted to them by the city council, which is to the effect that in the council's opinion, at any rate, the present tripartite division of the city for Poor-law purposes is an anomaly, and that the three unions ought to be amalgamated so as to form one large and strong union for the districts comprehended within the present city. It will be remembered that a few months since two, at least, of these boards were considerably inconvenienced by the difficulty experienced at that time in providing adequately for the tramps who persisted in flocking nightly to the wards in great numbers. The proposal that additional accommodation for the floating pauper population should be provided met with but little favour at the time, because it was known that at one of the workhouses in the city abundant tramp room existed, which was scarcely ever occupied, and it was therefore held to be an unnecessary waste of public funds to provide further accommodation until that which then existed was exhausted. The suggestion of the city council seems to be a wise one, and it is to be hoped that the boards of guardians concerned will look carefully into the matter before deciding to reject it.

Notification of Measles.

The medical profession of Manchester, as represented by the Medico-Ethical Society, has had before it the question of whether or not certain infectious diseases, not at present notifiable under the Local Act in force here, should be reported to the sanitary authority. They have accordingly suggested that, by way of a beginning, the notification of all cases of measles should be henceforth required in Manchester, as is at present the case in Salford, and they have petitioned the sanitary committee of the corporation accordingly. There are, of course, many objections to the application of the Notification Act to such a disease as measles. In the first place, not one tithe of the cases occurring amongst the poor are ever seen by a medical man at all, so that only the patients who are carefully tended at home would be notified, the remainder, who form the most dangerous portion of the cases, being left to spread infection wholesale. It is held by many medical men of experience that until arrangements are made for the

medical inspection of young children in attendance at school it is futile to expect much good from the proposed notification of these most prevalent and often fatal complaints. On the other hand, it is urged with much reason that since the framing of the Notification Act, and apparently in consequence thereof, the diseases to which the Act applies have steadily decreased in frequency, and that therefore there is reason to hope for a commensurate benefit from the inclusion of measles in the list of diseases scheduled in the Act. The sanitary committee have very properly referred the recommendation of the Medico-Ethical Society to the medical officer of health for his opinion, and I doubt not that Dr. Niven, as soon as he has fairly taken charge of the Health Department of Manchester, will give the suggestion his very earnest consideration.

Feb. 6th.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

The Stipendiary Magistrate and Medical Certificates.

AT the Police-court, on the 3rd inst., Mr. W. J. Stewart, the stipendiary magistrate, announced that the difficulty which had been experienced in the granting of certificates to persons taken to the dispensaries had been removed. He read a letter from the secretary to the effect that the former resolution had been rescinded and that the following had been substituted: "That medical officers are hereby instructed that in all cases treated at the dispensaries they shall, whenever asked to do so by the police, give a written certificate describing the nature of the injury sustained and whether dangerous or otherwise." This is as it should be, and it is to be hoped that a similar rule, written or unwritten, will be adopted at all the hospitals.

Workhouse Medical Officers and Fees for Inquests and Post-mortem Examinations.

With reference to the questions and answers in the correspondence column of the last two issues of THE LANCET it may be interesting to state that the present city coroner always pays the usual fees to the medical officers of the Liverpool Workhouse, following the example of his two predecessors. The first coroner of Liverpool, since it became a municipal corporation borough, was the late Mr. P. F. Curry, solicitor, and after the passing of the Medical Witnesses' Remuneration Act these fees were always paid, the fifth section not being considered to apply to workhouses. The second coroner, the late Mr. Clarke Aspinall, also a solicitor, always paid these fees from his appointment in 1867 till shortly before his death in 1891, the Coroners Act of 1887 having been passed just four years previously. The present coroner also pays these fees to the medical officers of the West Derby Union Infirmary, which is situated within his district. The test case alluded to as decided by the county court judge of Croydon should be tested in a higher court, as it is inconceivable that there can be two diametrically opposite meanings of the words of an Act of Parliament. Some coroners do the same as the Liverpool coroner, while others decline to pay these fees. Matters ought not to be allowed to remain in this undecided state.

The Prevention of Cruelty to Children.

The annual meeting of the Society for the Prevention of Cruelty to Children was held at the town hall on the 30th ult., the Lord Mayor presiding, being supported by the Lord Bishop of Liverpool, the Right Rev. Monsignor Nugent, Mr. Barnardo of London, and many influential persons. The Liverpool society was the first of its kind; it has had many followers, and though there is some irony in the fact that its institution followed long after that of the Society for the Prevention of Cruelty to Animals, it may be said to have made up for lost time. The report of the committee showed that 1496 cases affecting 2394 children were dealt with last year. These showed a falling-off, the cases of begging and hawking being less, while those of violence and neglect showed a considerable increase. The Shelter had admitted 1433 children, against 1853 during the previous year, their average stay having been seven nights. The number of beds provided was 9457, and the number of meals 16,640. The report showed that a large amount of other useful work had been done during the year.

The Crusade against Intemperance.

The recent meeting of the Church of England Temperance Society was distinguished by its very practical character Allusion was made in the last issue of THE LANCET to the speech by the Lord Bishop of Liverpool on intemperance among women and the grocer's licence. Nothing can be more practical, and, it is to be trusted, more useful than to keep this phase of the evil before the public. That people cannot be made sober by Act of Parliament is a truism or untruism according to its practical application; but that people may be made intemperate by facilities to intemperance being placed ready to hand has been proved beyond the possibility of dispute. The city coroner, Mr. Sampson, J.P., whose duty it is to hear the charges of drunkenness, gave the case of a woman who had been before the magistrates more than 330 times, and another who had been 130 times. Whether such cases as these are to be dealt with as criminals or lunatics is a practical question which must sooner or later be taken in hand. It is surely better for the victim of drink that he should have his liberty restrained than that he should die amid a general agreement that it would have been better for him had he never been born.

Feb. 5th.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Newcastle Royal Infirmary.

THE annual meeting of this infirmary was held on Thursday last, when the mayor occupied the chair. The Earl of Ravensworth moved the adoption of the report, which in its financial aspects was more cheering than many of its predecessors had been. Professor Philipson moved the adoption of the report respecting the new site for the erection of an infirmary on the Leazes, and quite near one of our most popular parks. The scheme was approved, after some opposition, by a large majority. It is expected that the new building will cost about £100 000, but the only sum in hand towards the project is the £5000 left by the late Dr. Heath. It is supposed that some six years will expire before we can hope to see a commencement made of the new building, but the work of collecting will no doubt be proceeded with at once now that there is a definite plan before the public.

The Water-supply of Newcastle.

Complaints continue to be made with regard to the character of the water supplied to the citizens of Newcastle. I see that it is about to be proposed in the City Council that boys and girls should be admitted free of charge to our swimming-baths, but it is to be feared that this inducement, even if granted, will not "draw," as the young people will hesitate to take their "headers" into this muddy water. It is also proposed in the council to appoint a committee to consider and report on the desirability of furnishing a supply of sea-water, for ablutionary purposes, to our city. This proposal, if adopted, would be a distinct sanitary advantage, and at the same time would economise the scanty supply of drinking water. Some years ago a scheme of the kind was inaugurated, but it was opposed by the mayor and corporation on the ground that it would give a company power to interfere with current street traffic and the House of Lords rejected the Bill on that account.

Newcastle Clinical Society.

At the last meeting of this society, which was held at the Dispensary, Mr. Black being in the chair, Dr. Limont showed a patient with locomotor ataxia, and another with the same disease, with the addition of Charcot's joint. Other members of the society brought forward patients suffering from diseases, the symptoms accompanying which were of a less familiar kind than those which are usually met with in general practice. Dr. T. Lyle read a paper on Melancholia and its Treatment, which led to an interesting discussion, in which the Chairman, Dr. Atkinson and Messrs. Smith, Wreford and W. G. Richardson joined.

Successful Prosecution of a Quack.

At the Haughton Police-court last week a person named Joseph Steel, a miner, was charged with having unlawfully exhibited a plate bearing the name of Joseph Steel, M.B. (Bc.), he not being a qualified person and therefore not registered under the Medical Act. It was shown that the defendant carried on business as a herbalist under the above style and so was practising a fraud on the public. For the defence the Rev. Mr. Minning of the Botanic Society was called, who said that the defendant's titles were awarded by the association and gave Steel the power to practise in medicine, but

not as a surgical operator. The bench, however, did not agree with the rev. gentleman, and fined the defendant £10 and costs, or six weeks' imprisonment without hard labour.

Newcastle-upon-Tyne, Feb. 5th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENT.)

The Morrison Lectures on Insanity.

THE first of this series was delivered before the Royal College of Physicians, Edinburgh, by Dr. John Batty Tuke. His intention was to study in these lectures the methods of action of some of the proximate causes of insanity, and the principle of treatment founded on these. He proposed to restrict himself mainly to over-exertion of the brain as productive of insanity, and almost exclusively to its action during the earliest stages of the condition, when the deranged cerebral apparatus was in a state to react to therapeutic measures. He quoted Dr. Creighton's opening sentences in his article on "Pathology" in the *Encyclopædia Britannica* as expressing his own views on the relation of theory and knowledge in medicine; and said that the "unique position of pathology among the natural sciences was owing to the fact that it was a theory of practice—a body of truth and guesswork existing for the benefit of a working profession which is daily brought face to face with emergencies and is constantly reminded of the need of a reasoned rule of conduct." For twenty years the lecturer had endeavoured to show the social influences which had induced the public mind and the profession to regard insanity as a disease of the mind. The popular conception of the condition had been until a not very remote period entirely psychological or a rude mixture of a pseudo-psychology and a pseudo-pathology. The physician's conception of the condition had not differed in kind from that of the general public. At the end of the last century insanity was a symptom of disease, but differed in some mysterious way from all other diseases. The psychological principle found expression in nomenclature, and in the first issue (1871) of the official "Nomenclature of Diseases," drawn up by a joint committee appointed by the Royal College of Physicians of London, all the insanities were ranged under six "Disorders of the Intellect." Within the last thirty-five years etiology had in theory, if not in practice, been adopted instead of mere symptomatology as a basis of classification. The etiological nomenclatures had served the good purpose of keeping before the mind that insanity was merely a symptom of somatic disease; by deflecting the observer from the misconception involved in the term "mental disease," and by focussing his attention on the phenomena following on actual or presumed causes, they had directed inquiry as to consequent alterations in tissue. They had acted as guides to the higher pathological platform, to the study of the changes in the organs through which consciousness is manifested. There was every probability that we shall have to retain this system of classification for many years to come, and there was even a possibility that its terminology may become permanent, in consequence of a definite pathological meaning becoming attached to many of the presently recognised etiological groups. We had not advanced far on this road, but there was reason to hope that the study of the insanities will in future be conducted on the same scientific principles that governed our views of disease at large. He had sometimes speculated upon the attitude the profession would assume if a case of acute mania or acute melancholia were introduced to it for the first time and with no previous knowledge of such cases. Imagine two cases presenting a congeries of symptoms, the most prominent in which was a degree of mental alienation. One a man in poor bodily condition, quick and irritable pulse, temperature above normal, blood poor, bowels costive, oxalates or phosphates in his urine, sleepless, restless, wringing his hands and saying his soul was lost; in short, deeply melancholic. The second a woman with much the same bodily symptoms, but menstruation arrested, mentally exalted. Both patients were stated to have suffered from serious anxieties and sorrows. Under the circumstances, supposed he held that the mind of the college would not turn to the idea contained in the term "mental disease," but that first impressions would lead to the rough provisional diagnosis of obscure bodily disease, accompanied by unusual forms of delirium. It appeared to him extremely likely that the mental symptoms would not bulk very largely in our eye, that we would commence the study of this new congeries of symptoms by careful investigation into the bodily condition, and that the mental symptoms would be regarded as mere incidents in the case, as we had been in the habit of regarding delirium of different kinds as a secondary consequence of various diseases. After a careful examination of all the systems we would be forced by a process of exclusion to adopt the rough provisional diagnosis of disease of the brain accompanied by mental symptoms—a very different diagnosis from that of mental disease. In what part of the organ would we localise the disease? Our teaching would place it in the frontal and superior convolutions. The only assignable reason for the existence of bodily and mental symptoms from the history was prolonged painful emotion. We would then push our inquiries as to the manner in which emotion could so act on those gyri as to produce morbid modifications of the bodily or mental functions. Laying aside this parable, he proceeded to consider facts and theories bearing on the general proposition that insanity was the result of well-defined morbid processes, and that it was but one of a group of symptoms in a given case. Morbid symptoms cannot yet be always referred definitely to actual structural change, although science was gradually narrowing the area of ignorance, and year by year diagnosis and treatment were based more fully on definite knowledge of normal and morbid anatomy and the physiology of organs. The application of this knowledge to the brain had already had effects in the treatment of many cerebral diseases; but he asked whether as regarded the insanities theory founded on this new knowledge had been pushed far enough to seriously influence treatment, and whether the relations one to the other of the various organs which composed the substance of the brain had been seriously studied with the view of considering in what manner and to what extent implications of one or more of them may react on the functional activity of the organ. He believed that the practitioner was not so intimately acquainted with the minute anatomy of a convolution as he was with the other organs, and that therefore he was not able to visualise the probable changes which may occur in a gyrus during disease. Was a brain convolution often regarded as an apparatus, and was the same kind of conception arrived at in respect of the possible and probable change which may take place in it as was arrived at with regard to the other organs? Believing that it was not so he proposed to attempt to diagrammatise a convolution. He then proceeded to describe and demonstrate by means of the lantern the structure of a convolution, following the description of Ramon y Cajal, pointing out the various layers of cells and the processes connected with them as shown by Golgi's method of preparation and staining. He then dwelt upon the true structure of the pia mater, and the importance and connexions of the lymphatic system in the brain.

The Edinburgh Longmore Hospital for Incurables.

The annual meeting of this institution was held last week. In the report reference is made to the completion of the new wing and the reopening of the hospital by the Duke and Duchess of York last October. The hospital now contains 90 beds for adults, and when the children's wards are completed there will be accommodation for 106 patients; £15,000 will be necessary to complete and endow the new building, and of that sum between £10,000 and £11,000 have been subscribed. There was an increase in annual subscriptions and donations during the past year, but there was a falling-off in legacies. The total number in the hospital at the end of the year was 41 males and 42 females.

Lochmaben and the Board of Supervision.

An action has been raised by the Board of Supervision against the Lochmaben authorities for contempt of court for failing to carry out the order of the Board to introduce a gravitation water-supply to the burgh.

The Edinburgh Royal Infirmary and the Royal College of Surgeons.

As has been intimated, some unpleasantness arose regarding the management of the Royal Infirmary by the Royal College of Surgeons returning as managers two of its Fellows on the acting staff of the infirmary. The College, at the request of the managers, reconsidered the matter, but adhere to their choice of representatives, and deny that the managers have any power to interfere with their choice of representatives. The College further contend that it will be to the advantage of the infirmary to have members of

the acting staff on the Board of Management, and point out that in London and in many of the hospitals in the provinces it is customary to have members of the staff on the management.

Small-pox in Edinburgh and Leith.

Last week seven new cases of small-pox were reported in Leith and four in Edinburgh.

Feb 8th.

IRELAND.

(FROM OUR OWN CORRESPONDENT.)

Richmond District Lunatic Asylum.

FROM the annual report of Mr. Norman, resident medical superintendent, it appears that extra accommodation is required for the insane poor of the city of Dublin, the Richmond Asylum having 429 inmates above the allotted number. The Board of Control were in treaty for the purchase of an estate of about 300 acres, whereon to erect a second asylum for the district. It has been decided to erect a mortuary, post-mortem room, and pathological museum, and to build a new laundry, kitchen, and stores. During the past year 175 patients died, showing a percentage of mortality of 7·6 for males, and 1 5 for females, that for all Ireland being 7 6 for males and 9·1 for females. The returns of employment showed that 65 men worked on the farm, 33 were engaged at various trades, 27 men and 25 women worked in the kitchen, 35 women were engaged in the laundry, 133 were employed at needlework, and 300 men and 235 women were returned as attending school.

Insanity in Ireland.

Dr. Woods, resident medical superintendent of the Cork Lunatic Asylum, in replying to a circular from the Lunacy Office, Dublin Castle, asking for information as to the alleged increasing prevalence of insanity in Ireland, states that if the number of first admissions be taken as the main test of the progress of insanity there has been no increase in the county of Cork during the last ten years. The average number of first admissions has been 213; the number admitted in 1883, the first year of the decade, was 211, and the last year 203; the readmissions were below the average for the first four years and above for the years 1888, 1889 and 1892. There has been a considerable falling-off in the death-rate, the average for the ten years being 9 per cent., being for the first five years 11 3 per cent. and for the last five 6 8 per cent. The information as to the cause of insanity is very unreliable owing to the imperfect and very inaccurate information supplied on the committals. Eighty-three per cent. of the patients are brought to the asylum by the constabulary, who, as a rule, know little about them. Dr. Woods is satisfied that intemperance or abuse of alcohol is a far more frequent cause of insanity than is assigned, and hereditary disposition is always reluctantly acknowledged by the friends and should hold a much more prominent position as a cause of insanity than it does in the returns. It is difficult of proof, but he has long been of opinion that the free discharge of weak-minded but harmless patients and the too early removal of those recovering have tended to considerably increase the number of insane who break down from heredity.

Feb. 6th.

Obituary.

T. CRANSTOUN CHARLES, M.D., M.R.C.P. LOND.

IT was with regret that we announced in the last issue of THE LANCET the unexpected death of Dr. T. Cranstoun Charles. Dr. Charles was born at Cookstown, county Tyrone, and received his early education in the Cookstown Academy. He afterwards proceeded to Belfast, where at the Queen's College he highly distinguished himself and graduated in 1869, obtaining first-class honours and the gold medal. He subsequently became assistant lecturer in chemistry and chemical physics at that college. He was for some time resident physician to the Belfast Infirmary and Hospital for Contagious Diseases and later increased his medical knowledge by visits to the chief hospitals in this country and to those of Paris and Vienna. In 1875 he became connected with St. Thomas's Hospital as demonstrator of physiology and afterwards held various similar appointments in connexion with the teaching staff until his death. He was medical registrar from 1876 to 1879 and wrote the medical reports for those years, conjoint lecturer on general anatomy and physiology from 1884 to 1886, and lecturer on practical physiology from 1879 to 1893. Dr. Charles was a volunteer ambulance surgeon and did good work during the Turco-Servian war of 1876. Although at the time of his death he was physician to the Westminster Training College, the greater part of his life was spent in scientific research, the nature of which is indicated by the titles of some of his better known contributions to the literature of the day. To the *Philosophical Magazine* he contributed papers on the Analysis of Coals and Lignites and Methods of Organic Analysis, and he wrote articles on Specific and Latent Heats, Heat of Combination, Thermodynamics, Ozone, &c. for "Mackenzie's Dictionary of Chemistry." He also wrote on Working Schemata of the Circulation of the Blood and Lymph in the *Journal of Anatomy and Physiology*; on Ichthyol: a Contribution to its Therapeutics, and on Pulmonary Phthisis: its Pathology and Curability in Early Stages, in the columns of THE LANCET; and on Intermittent Albuminuria in the St. Thomas's Hospital Reports, &c. A more important contribution to chemistry was a book of 600 pages on Physiological and Pathological Chemistry produced in 1885, a second edition of which was published in America two years later. Dr. Charles was a very hard worker and was formerly known to more than one of the editors of our daily papers as a contributor of most acceptable articles on subjects of general interest, evincing much power of research, originality and literary attainments. As a teacher he was appreciated for his earnestness, industry and good-nature, though an occasional rapidity of utterance sometimes militated against that clearness of expression which is so important in one engaged in teaching. Warm-hearted and impulsive, he was liked by all, and his tall, stalwart form will long be missed. Dr. Charles was in his forty-fifth year.

ARTHUR STEDMAN, M.R.C.S., L.S.A.

ON Jan. 28th last this well-known and esteemed practitioner in the county of Surrey passed to his rest at the age of sixty years. He was educated at Tunbridge Wells Grammar School, and after an apprenticeship to Mr. Miles of Gillingham he entered the medical school of University College, London, where he obtained several class distinctions and acquired the life-long friendship of many of his fellow students. He then went as assistant to Dr. Carter of Pewsey, Wilts, and afterwards practised for a short time at Cookham, Berks, and Cullompton, Devon, respectively, finally succeeding to his father's practice at Great Bookham, where he remained until his death. He was medical officer and public vaccinator to the boards of guardians of Epsom and Dorking, and held various dispensary appointments. He was also for the last twelve years medical officer of St. John's College, Leatherhead. This last was his favourite work and one in which he took the deepest interest, allowing no pain or suffering to interfere with his duties there. His zealous and kindly supervision endeared him to all connected with the school, which owes much to him. He also took the greatest interest in local affairs and actively and successfully promoted many social undertakings, to the great advantage of the neighbourhood, especially of the poorer inhabitants, by whom he was regarded with the warmest esteem as one of their best and truest friends. He was a great lover of flowers and garden pursuits and was most proficient in botany, which was his favourite study. In the course of his life he acquired a splendid herbarium, which he bequeathed to Lord Ashcombe. He was an excellent type of country practitioner—calm and resourceful in an emergency, untiring in his devotion to his professional work, jealous to a degree of professional honour and integrity and ever ready with advice and help to all who were in trouble or difficulty. The patience and fortitude with which he bore the painful disease which ultimately proved fatal were noble in the extreme, and a worthy termination of a life devoted unselfishly to the interests of others.

ROBERT HAGYARD, M.R.C.S., L.S.A.

THE circumstances connected with the death of this gentleman, which took place on the 2nd inst., were of a peculiarly distressing character. About two years ago Mr. Hagyard

appears to have been troubled with very bad health, which induced him to try what a voyage might do for him. The result answered his expectations, and for a time there seemed a probability that the benefit would be permanent; but lately some of his old symptoms returned and were attended with much discomfort. Death took place on the day above mentioned, and the circumstances were such as seemed to warrant the holding of a coroner's inquiry. Dr. Thomas Jackson was the principal witness at this investigation, by whose evidence it was shown that the fatal result was due to tetanus. Mr. Hagyard went to Hull in 1881, and occupied for some time the post of house surgeon in the infirmary of that town. He was afterwards elected to the surgeoncy of the Yorkshire and Lincolnshire Orthopædic Hospital, in which post he succeeded in winning the confidence and esteem of the governors of the charity as well as of the patients placed under his charge. Orthopædic surgery principally engaged his attention, and several instruments designed to remedy or lessen deformity of the limbs owed their origin to his ingenuity.

THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AN ordinary meeting of the Council of the Royal College of Surgeons was held on Feb. 8th, Mr. J. W. Hulke, F.R.S., President, in the chair.

The committee appointed on Jan. 11th to consider and report to the Council on the desirability of again applying to the Secretary of State for Home Affairs for an alteration of Section XVI. of the By-laws relating to the misconduct of Fellows and Members, presented a report in which they expressed their opinion that this was desirable, as at the present time the Council was not infrequently in the position of being unable to take any action against Members of the College who had been removed from the Medical Register by the General Medical Council, with the result that the names of Members whose conduct had been adjudged to be so disgraceful as to render them unfit to be retained on the Medical Register still appeared on the lists of the College. The committee proposed in a further report to submit recommendations as to the form which such alterations should take. The report was approved, and it was proposed by Mr. Macnamara, and seconded by Mr. Bryant: That it be referred to the same committee to consider and report whether any, and, if so, what, alterations are desirable in the following sections of the by-laws: (1) Section IV., Clauses 5 and 6, relating to the mode of issuing and returning voting papers at Council elections; (2) Section XX., Clause 2 and Clause 4 (so far as it relates to fees), by which candidates for the Fellowship are compelled to have first passed the examinations of the combined Examining Board; and (3) Section XXV., Clause 8, relating to the fees for the Dental Diploma.

The Council had under consideration some cases of alleged misconduct on the part of Members of the College.

A letter was read from Mr. Charles Clement Walker of Lilleshall Old Hall, near Newport, Salop, offering to found a prize to be competed for by persons investigating the disease of cancer, and inquiring whether the College would undertake to administer the fund in accordance with certain suggestions made by him. It was moved and seconded that "the Council accept with pleasure the offer of Mr. Charles Clement Walker to found a prize for the encouragement of the investigation of cancer and other diseases, and hereby refer it to a committee to draw up regulations to carry out Mr. Walker's proposals." The committee is to consist of the President, the Vice-Presidents, Mr. Hutchinson (as chairman), Mr. Bryant, and Mr. Heath.

The Council nominated Sir William MacCormac, senior Vice-President, Sir Spencer Wells and Mr. Bryant, past-Presidents, as delegates to represent the College at the Eleventh International Medical Congress at Rome in April next.

WIGAN MEDICAL SOCIETY.—At the annual meeting of the above society on Feb. 1st the following gentlemen were elected office-bearers for 1894:—President: Mr. E. H. Monks, jun. Committee: Drs. R. P. White and M. Benson, Messrs. E. H. Monks, jun., W. C. Barnish, C. M. Brady, R. H. Cowan, and Wm. Latham. Treasurer: Mr. G. H. Monks, jun. Hon. Secretary: Mr. Wm. Berry.

Medical News.

VOLUNTEER MEDICAL STAFF AT BIRMINGHAM.—The medical department of the Birmingham Rifle Brigade held their annual dinner on Saturday last. After the repast the prizes won by the members of the department during the year were distributed by Colonel Jarvis, who remarked on the satisfaction felt by him in having under his command a department of such efficiency as that of the medical staff of the brigade. Surgeon-Lieutenants Whitcombe and Newton were then called forward and congratulated on winning the shield.

FOREIGN UNIVERSITY INTELLIGENCE.—*St Petersburg (Medico-Chirurgical Academy).*—Dr. Slavianski has been reappointed for five years to the Chair of Midwifery. *Warsaw.*—Dr. A. E. Shcherbak of St. Petersburg has been appointed to the Professorship of Nervous and Mental Diseases. *Vienna.*—Dr. Joseph Schaffer has been appointed Extraordinary Professor of Histology. *Innsbrück.*—Dr. L. Kerscher of Brünn has been appointed to the Chair of Histology and Embryology. *Berlin.*—Dr. Pfeiffer, Principal of the Scientific Department of the Institute for Infectious Diseases, has been promoted to the rank of Professor.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.—Dr. C. Wurth, one of the senior medical practitioners in Liège, where he was surgeon to the *Hospices*. He had been decorated with the Civil Cross of the First Class for his devotion to the poor during times of epidemic disease. He had been obliged to retire from active work some two years ago.—Dr. B. Verleysen, corresponding member of the Medical Commission of East Flanders and Mayor of Eremboderem.—Dr. Vladimir Stepanovich Alexandroff, of Kharkoff, who has also made a name for himself in the field of dramatic literature and music.

FRENCH HOSPITAL AND DISPENSARY.—The twentieth annual dinner in aid of the funds of this institution took place on Saturday evening last in the Whitehall Rooms, Hôtel Métropole, the new French ambassador, M. Decrais, in the chair. The Lord Mayor was prevented by illness from assisting and was represented by Sir Polydore de Keyser. Many members of the Corps Diplomatique were present. According to the annual report it seems that until last year the hospital was able to pay its way, but the general expenses have so greatly increased since its removal to the extensive and handsome premises in Shaftesbury-avenue that a heavy deficit remains on last year's liabilities, to clear off which an urgent appeal was made. A touching allusion was made by the chairman to the loss sustained by the hospital and by France in the person of the late M. Waddington, who for so many years had presided over these festive meetings. An agreeable *répertoire* of music enlivened the intervals between the toasts, and donations to the amount of about £2500 were announced.

THE STRAITS MEDICAL ASSOCIATION.—The annual general meeting of this society was held in the Raffles Museum, Singapore, on Saturday, Dec. 16th, 1893. The committee's annual report for the past year was presented and it was agreed that steps should be taken with a view to affiliation with the British Medical Association. The name of the new branch will be "The Straits Medical Branch of the British Medical Association." The following papers were read at the usual monthly meetings throughout the session which has just come to a close:—January, 1893—President's (Dr. Ellis) address, "Brain Syphilis." February—Paper on "Sprue," by Mr. Dane. March—Clinical case, by Dr. Jansz. Paper on "The Need of Reform in the system of Registration of Deaths in the Straits Settlements," by Dr. Dumbleton. April—Paper on "Pulmonary Calculi," by Dr. Highet. May—Paper on "A Form of Intestinal Obstruction," by Mr. Tripp. June—Clinical case, by Dr. Highet. Paper on "Inguinal Lymphadenitis," by Dr. Galloway. August—Paper on "Chyluria and Hæmatochyluria," by Dr. Jansz. October—Papers on "Acromegaly" and "Spinal Concussion," by Dr. Hoad. November—Clinical cases, by Dr. Highet. Paper on "Unqualified Practice in Singapore," by Mr. Mugliston. December—Paper on "Myopia," with clinical cases, by Dr. Highet. The office-bearers for the ensuing year were elected as follow:—President: Dr. D. J. Galloway. Vice-President: Mr. T. C. Mugliston. Committee: Drs. W. Hoad, W. G. Ellis, and R. Jansz. Honorary Secretary and Treasurer: Dr. H. Campbell Highet.

THE NUMBER OF PATIENTS IN THE METROPOLITAN ASYLUM HOSPITALS.—At their last meeting, a week ago, the returns to the Managers showed that the number of fever cases in the hospitals of the Board was 2937, a decrease of 87, in spite of an increase in the notifications of both scarlet fever and diphtheria. An amended estimate for a fever hospital at Shooter's-hill, at a cost of £194,000, to accommodate 500 patients, was adopted.

JEFFERSON MEDICAL COLLEGE: A FOUR YEARS' COURSE.—The Medical Faculty of this college have resolved to institute a four-years' course, to commence with the session 1895–6. This step has been taken in order that the large clinical service of 350 cases a day at the Jefferson College Hospital might be utilised to the fullest extent in carrying out the desire of the faculty to provide advanced medical education of a practical character.

PROPOSED AUSTRALASIAN MEDICAL ASSOCIATION. At a meeting of provincial and country medical practitioners, held at the Port Phillip Hotel, Melbourne, on Nov. 8th last, Mr. R. D. Pinnock, M.D. Glasg., of Ballarat, occupying the chair, it was resolved to form an Australasian Medical Association, the constitution to be determined by delegates from the various branches in the country districts, at a date to be decided on. Mr. J. W. Florance, M.D. Melb., Mooroopua, Victoria, and Mr. R. Scott, M.B., Ch.M. Glasg., Ballarat, were appointed to act as interim secretaries, and were authorised to draft a constitution for the approval of the various branches which may be formed.

ROYAL ALFRED AGED MERCHANT SEAMEN'S INSTITUTION.—Admiral McClintock recently made an appeal in the daily press on behalf of this charity, established to alleviate the hard lot of aged and destitute seamen. About 100 aged seamen are maintained in the home provided by the institution, and some 250 others are supplied with a small pension. Official records go to show that of 300,000 British merchant seamen some 2300 annually lose their lives by shipwreck, whilst the number disabled by injury or by diseases incidental to foreign climates cannot be estimated. The sympathy of the charitable public may well be invoked for a class of men upon whose labours depends so much of England's wealth and prosperity.

FOOTBALL CASUALTIES.—The following accidents occurred on Saturday last:—In a match at Salisbury between the Centrals and Wanderers teams the captain of the latter fractured his right leg below the knee and was removed to the infirmary.—While playing a match between Cliftonville and Distillery clubs a player fractured his left leg.—During a match played at Durham in the Junior Cup Competition between Henderson's Creelers and Blackhill Rovers the Rovers' full back dislocated his humerus and another player was "seriously injured in the back" and conveyed to the County Hospital, while a player of the Creelers had his "head split open" and was also removed to the hospital.

HEALTH CRUISES.—The Orient Company commence their programme for 1894 with the *Garonne*, which is announced to leave London on the 22nd inst. for a cruise to Portugal, Morocco, the Balearic Isles, Sicily, Palestine, Egypt, and Algeria. The ship calls at Nice on March 7th, so that passengers who prefer to embark there may delay their departure from London until March 6th. About a fortnight will be spent in Palestine, thus affording time to visit Damascus, Jerusalem, Bethlehem, Jericho, and the Jordan. At Alexandria there will be a stay of five days for passengers to visit Cairo. Malta, Algiers, and Gibraltar are touched at on the way home, and the ship arrives again in London on April 19th.

COUNTY ANTRIM INFIRMARY.—The medical and surgical report of this institution for the year ending November last has lately been published. The number of patients admitted to the wards during the year was 328, and the number of deaths from all causes was 17. Of the 407 patients treated in the extern department 149 were received for the treatment of accidents, 63 of which were regarded as sufficiently serious to warrant the admission of the sufferers to the wards. By the statement of the house surgeon, Mr. George St. George, it appears that 27 operations were performed during the twelvemonth, and of these 25 were successful. The loss by death of Mr. Samuel Musgrave, the late consulting surgeon, was referred to with regret in the annual report.

AN epidemic of influenza has broken out at the military barracks on the south side of the Seine. Three deaths have already occurred and nearly eighty men are in hospital.

PRESENTATION.—Mr. Thomas Stone, L.R.C.P., L.R.C.S. Edin., of Misterton, who is leaving that district after practising there for twenty-five years, was the recipient on the 1st inst. of a massive silver tray.

HOUSE DISINFECTION.—A section of the Public Health Act, 1891, requires that accommodation should be provided for persons whose dwellings had been adjudged to require disinfection. In compliance with the law the Commissioners of Sewers have opened in Cotton-street, E., a large building, which has been fitted up for the reception of such persons, and has been hired at a rental of £250 per annum. The building consists of five floors, while the ground floor serves as offices for an assistant to the sanitary inspectors of the City.

LIFE ASSURANCE MEDICAL OFFICERS' ASSOCIATION. The first general meeting of this association was held on Wednesday, Jan. 31st, at the rooms of the Medical and Chirurgical Society, Dr. Vivian Poore presiding before the election of President. The following were elected on the council. President: Dr. J. E. Pollock. Vice-President: Dr. Douglas Powell. Treasurer: Dr. Theodore Williams. Drs. M'Call Anderson, R. W. Burnet, Boor Crosby, de Havilland Hall, Heron, Hector Mackenzie, Newton Pitt, Vivian Poore, Symes Thompson, and Samuel West. Secretary: Dr. Thomas Glover Lyon. The rules were revised, the chief change being in the rule regarding qualification for membership. It was resolved that candidates for membership must have some definite interest in life assurance medicine; previously to this alteration the association was open to all medical men. The president's address was postponed till the last Wednesday in March, the business part of the meeting having occupied the whole evening. The association now numbers eighty members.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ADAMS, JAS., M.D. Aberd., F.R.C.S., has been appointed, *pro. tem.*, Medical Officer of Health for the Borough of Eastbourne.

BARNES, GEO., L.R.C.P. Edin., M.R.C.S., has been re-appointed Medical Officer of Health for the Chard Urban Sanitary District of the Axminster Union.

BARTLETT, RALPH C., M.R.C.S., L.R.C.P., has been appointed House Surgeon to the Dorset County Hospital, vice W. A. Rudd, M.D., resigned.

BERKELEY, G. H. A. C., M.B., B.C. Cantab., has been appointed Clinical Assistant to the Ear and Throat Department of the Middlesex Hospital.

BILLIALD, R. A., L.R.C.P. Lond., M.R.C.S., has been appointed Honorary Medical Officer to the Victoria Cottage Hospital, Kington.

BISHOP, HENRY DRAPER, M.R.C.S. Eng., L.R.C.P. Lond., has been appointed Senior House Surgeon to the Carnarvon Hospital, Kimberley.

BLAXALL, FRANK R., M.D. Lond., D.P.H. Camb., has been appointed Lecturer on Bacteriology to the Westminster Hospital.

BREW, R. H., L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer and Public Vaccinator for the Chew Magna Sanitary District.

BULLEN, H. J. L., M.R.C.S., has been appointed Medical Officer for the Third Sanitary District of the New Forest Union.

BURTON, R. GRAVES, M.D. Edin., L.R.C.S., has been reappointed Medical Officer of Health for Hanwell, Middlesex.

COLE, T. W., M.B. Dub., B.Ch., has been appointed Medical Officer of Health to the Bolsover Local Board.

CROWTHER, T., M.D. Aberd., M.R.C.S., has been appointed Medical Officer of Health for Warley, Luddendon Foot, and Midgley.

DEBENHAM, H. K., M.R.C.S., has been appointed Consultant Medical Officer to the Victoria Cottage Hospital, Kington.

ETCHES, W. R., M.R.C.S., L.R.C.P. Lond., D.P.H., has been appointed Medical Officer of Health for the Macclesfield Urban Sanitary District.

GOULD, H., M.R.C.S., has been appointed Public Vaccinator for the Homerton District.

GUTTERIDGE, E. P., M.R.C.S., L.M., has been reappointed Medical Officer of Health for the Urban and Port Districts, Maldon.

HARRISON, JAMES, M.R.C.S., L.S.A., has been appointed Medical Officer to the Garstang District and to the Workhouse, vice Wm. Chapman, resigned.

HOBSON, LEWIS JOHN, M.D. Lond., B.S., F.R.C.S., has been re-appointed Honorary Consulting Physician to the Royal Bath Hospital and Rawson Convalescent Home, Harrogate.

HOPE, EDWARD W., M.D., C.M. Edin., D.Sc. (Pub. Health), L.R.C.P. Lond., has been appointed Medical Officer of Health for the Liverpool City and Port, vice Taylor.

HYATT, JAS. T., L.R.C.P. Edin., M.R.C.S., D.P.H. Camb., has been appointed Medical Officer to the District Hospital, Shepton Mallet.

JACKSON, PHILIP J., M.R.C.S. Eng., has been appointed Medical Officer of the Southwark Division of the General Post Office, vice J. H. Waterworth, M.D., deceased.

JOHNSON, WILLIAM J., M.B., B.S. Lond., M.R.C.S., L.R.C.P., has been appointed Assistant House Surgeon to Guy's Hospital.

LAVERICK, JOHN V., L.R.C.P. Lond., L.F.P.S. Glas., L.R.C.P. Edin., has been appointed Medical Officer of Health for the Whitby Rural Sanitary District.

LAKE, WM. W., M.R.C.S., D.P.H. Camb., has been appointed Medical Officer of Health for the Woking Urban Sanitary District.

LEATHE, JOHN BERESFORD, M.B., B.C. Oxon., has been appointed Assistant House Surgeon to Guy's Hospital.

LEVASON, P. G., L.D.S.R.C.S. Eng., has been reappointed Honorary Dental Surgeon to the Victoria Cottage Hospital, Kington.

MACKINTOSH, WM. A., M.B., C.M. Edin., has been appointed Medical Officer to Simpson's Asylum, Plean.

MILNE, A. D., M.B. Aberd., has been appointed House Surgeon to the Children's Hospital, East End Branch, Sheffield.

MOLINEUX, JAS., M.D. St. And., M.R.C.S., has been appointed Medical Officer of Health for the Sculcoates Rural Sanitary District.

O'CONNOR, C. P., M.D. Durh., M.R.C.S., has been appointed Medical Officer for the Third Sanitary District of the North Witchford Union.

PETERS, A. J. A., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Medical Officer to the Arbroath Infirmary and Dispensary, vice Munro, resigned.

POPE, H. B., M.D. Dub., B.Ch., has been appointed Honorary Medical Officer to the Victoria Cottage Hospital, Kington.

PRINCE, J. W. G., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Third Sanitary District of the East Grinstead Union, vice Koettlitz, resigned.

REED, J. S., L.R.C.P. Lond., M.R.C.S., has been reappointed Honorary Surgeon to the Gorleston Cottage Hospital.

RICKETTS, T. F., B.Sc. Lond., M.D., L.R.C.P., M.R.C.S., D.P.H., has been appointed Medical Superintendent of the Hospital Ships of the Metropolitan Asylums District.

SHEPERD, A. W., L.R.C.P., L.M., L.R.C.S. Irel., has been appointed Medical Officer of Health to the Cowbridge Town Council.

THORNE, W. BEZLY, M.D. St. And., M.R.C.P. Lond., M.R.C.S., has been appointed Physician to the Royal Insurance Company, London.

TIPPLE, E., L.R.C.P., L.M. Edin., M.R.C.S., has been reappointed Honorary Surgeon to the Gorleston Cottage Hospital.

VOELCKER, DR., has been appointed a District Agricultural Analyst, by the Lyndsey County Council.

WEBB, WM. H., M.D. Durh., L.R.C.P. Lond., M.R.C.S., has been re-appointed Medical Officer of Health to the Kingsbridge Local Board.

WICKHAM, GILBERT H., M.B., B.C. Cantab., has been appointed Honorary Medical Officer for out-patients, Royal Victoria Hospital, Bournemouth.

WOOD, C. G. RUSS, M.R.C.S. Eng., L.R.C.P. Lond., has been appointed Honorary Ophthalmic Surgeon to the North of England Children's Sanatorium, vice F. Harris, M.R.C.S. Eng., resigned.

WEARSLEY, P. MACLEOD, F.R.C.S. Eng., has been appointed Curator of Museum, Westminster Hospital.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

COUNTY LUNATIC ASYLUM, Snenton, Nottingham.—Assistant Medical Officer, unmarried. Salary £100 a year, rising £10 annually to £150, with board, lodging, washing, and attendance.

CUMBERLAND INFIRMARY, Carlisle.—Assistant House Surgeon for one year. Salary £40 per annum, with board, lodging, and washing.

EAST GRINSTEAD UNION.—Medical Officer for the Workhouse at East Grinstead. Salary £75 per annum, with the usual extra fees. Applications to the Clerk to the Guardians, Union Offices, East Grinstead.

EAST GRINSTEAD UNION.—Medical Officer and Public Vaccinator for the No. 1 District. Salary £80 per annum, with the usual extra fees for Surgical and Midwifery cases and as Public Vaccinator. Applications to the Clerk to the Guardians, Union Offices, East Grinstead.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, London, E.—Pathologist and Registrar. Honorarium £40 per annum.

EAST SUFFOLK AND IPSWICH HOSPITAL, Ipswich.—House Surgeon, unmarried. Salary £80 per annum, with board, lodging, and washing.

GENERAL INFIRMARY AND DISPENSARY, Doncaster.—In door Dispenser and Assistant to House Surgeon. Board, lodging, and washing provided.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway.—Physician to out-patients.

GUILDFORD AND GODALMING JOINT HOSPITAL BOARD.—Medical Officer for the Isolation Hospital for Infectious Diseases, situate at Woodbridge, Guildford. Salary at the rate of £175 per annum, and the officer appointed will be required to appoint a Deputy, to be approved by the Board. Applications to the Clerk to the Joint Board, County and Borough Halls, Guildford.

HOSPITAL FOR DISEASES OF THE THROAT, Golden-square, W.—Dental Surgeon.

HOSPITAL FOR WOMEN AND CHILDREN, Leeds.—House Surgeon for twelve months. Salary £75 per annum.

HOSPITAL FOR WOMEN, Soho-square, London, W.—House Physician. Salary £30 for six months, with board, &c.

NORTHUMBERLAND COUNTY ASYLUM, Morpeth.—Clinical Clerk. Board and residence provided.

OXFORD EYE HOSPITAL.—House Surgeon for one year. Salary £50, with board and lodging.

PARISH OF PADDINGTON.—Medical Officer of Health. Salary £600 per annum. Age not to exceed thirty-five years. Applications to the Vestry Clerk, Vestry Hall, Harrow-road, W.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL, Marylebone, N.W.—Resident Medical Officer for four months. Salary at the rate of £60 per annum, with board and residence in the hospital.

ST. LUKE'S HOSPITAL, London, E.C.—Clinical Assistant for six months. Board and residence provided.

ST. PANCRAS AND NORTHERN DISPENSARY, 125, Euston-road.—Honorary Physician.

TIVERTON INFIRMARY AND DISPENSARY.—House Surgeon and Dispenser, unmarried. Salary £100 per annum, with lodgings, attendance, fire, and lights. Applications to Mr. Arthur Fisher, Hon. Secretary, Tiverton, Devon.

WHITTINGHAM ASYLUM.—Junior Assistant Medical Officer. Salary £100 a year; board, &c., provided. Applications to Superintendent, Whittingham Asylum.

Births, Marriages and Deaths.

BIRTHS.

CHAMBERS.—On Feb. 4th, at the Priory, Roehampton, S.W., the wife of James Chambers, M.D., of a daughter.

DOVE.—On Feb. 6th, at Parkside, Crouch End, the wife of Augustus C. Dove, M.D., of a son.

JOHNSTON.—On Jan. 31st, at Charlotte-square, Edinburgh, the wife of Robert McKenzie Johnston, M.D., of a son.

PINHORN.—On Jan. 30th, at Cambridge-terrace, Dover, the wife of Richard Pinhorn, M.R.C.S., L.R.C.P. Lond., L.S.A., of a daughter.

WALKER.—On Jan. 27th, at Spilsby, the wife of Dr. Francis J. Walker, of a daughter.

WILLIAMS.—On Feb. 7th, at Salisbury House, Tottenham, Middlesex, the wife of J. Lawson Williams, M.B., C.M., of a son.

MARRIAGES.

CALVERT—THOMAS.—On Feb. 1st, at the parish church, Stroud, W. Dobree Calvert, M.R.C.S., son of S. Calvert, Esq., Solicitor, to Gertrude Sarah Playne, daughter of the late Rev. E. T. W. Thomas, Vicar of St. Mark's, Gloucester.

HAY—BODINGTON.—On Feb. 3rd, at the Cathedral, Lichfield, Robert Hay, M.D., Royal Navy, to Juliet Eaton, eldest daughter of G. F. Bodington, M.D., F.R.C.S. Eng., of Hatzic, British Columbia.

MYERS—LUCK.—On Feb. 1st, at St. George's Church, Bloomsbury, Lancelot Brainard Myers, L.D.S. Eng., son of L. J. Myers, L.D.S. Eng., St. Albans, to Beatrice, second daughter of Mrs. W. J. Matthews Luck, at Chicago.

SCOTT—TOWNSEND.—On Jan. 31st, at Christ Church, Bray, county Dublin, George Melmoth Scott, B.A., M.B., of Maldon, Essex, to Maye, third daughter of the late William Unacke Townsend, Esq., of 15, Earlsfort-terrace, Dublin.

DEATHS.

CHEYNE.—On Feb. 6th, at Caxton, Cambs., Mary Emma, wife of W. Watson Cheyne, F.R.C.S., aged 37.

ROBERTS.—On Feb. 5th, at his residence, Aberdare, Evan Vaughan Roberts, M.B. Edin., aged 30.

STEDMAN.—On Jan. 28th, at Flushing (late of The Croft), Great Bookham, Surrey, Arthur Stedman, M.R.C.S., L.S.A., aged 69.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

BOOKS ETC. RECEIVED.

ALLEN, GEORGE, London and Orpington.
The Oxford Museum. By H. W. Acland, M.D., and J. Ruskin, M.A. 1893.

BAILLIÈRE, TINDALL, & COX, King William-street, Strand, London.
The Latin Grammar of Pharmacy: for the use of Medical and Pharmaceutical Students. By Joseph Ince, F.C.S., F.L.S., F.G.S. Sixth Edition. 1894. pp. 306.

BLACK, A. & C., London.
Investigations on Microscopic Foams and on Protoplasm. By O. Butschli. Authorised translation by E. A. Minchin, B.A. Oxon. 1894. pp. 379. Price 18s. net.

CASSELL & Co., London.
The Year-Book of Treatment for 1894. pp. 492. Price 7s. 6d.

CHURCHILL, J. & A., New Burlington-street, London.
The Ophthalmoscope: a Manual for Students. By G. Hartridge, F.R.C.S. Illustrated. Second Edition. 1894. pp. 156. Price 4s. 6d.
Index Pathologicus, for the Registration of the Lesions recorded in Pathological Records or Case-books of Hospitals and Asylums. By Jas. C. Howden, M.D. 1894. pp. 86. Price 6s.

CLAY, W. F., Edinburgh.
Outlines of Gynæcological Diagnosis. By N. T. Brewis, M.B., C.M., F.R.C.P.E. Illustrated. 1894. pp. 68.

CONSTABLE, T. & A., Edinburgh.
Atlas of Clinical Medicine. By Byrom Bramwell, M.D. Vol. II., Part 3. 1893.

GRIFFIN, C., & Co., Exeter-street, Strand, London, W.C.
An Introduction to Midwifery. By Archibald Oswald, M.D. Edin., M.R.C.P. Lond. Illustrated. 1894. pp. 188.

HIRSCHWALD, AUGUST, Berlin.
Pathologisch-Anatomische Diagnostik, nebst Anleitung zur Ausführung von Obductionen sowie von pathologisch-histologischen Untersuchungen. Von Dr. J. Orth. 1894. pp. 709.

KEGAN PAUL, TRENCH, TRÜBNER, & Co., Charing-cross-road, London.
Proceedings of the Society for Psychical Research. January, 1894. Price 3s. 6d.

KELLY & Co., High Holborn, London.
Kelly's London Medical Directory. 1894. pp. 472. Price 6s. 6d.
Kelly's Handbook to the Titled, Landed, and Official Classes for 1894. 20th annual edition. pp. 1303. Price 10s.

KEMPTON, H., 82, High Holborn, London, W.C.
Modern Gynæcology: a Treatise on Diseases of Women. By C. H. Bushong, M.D. Illustrated. 1894. pp. 380.

LEHMANN, J. F., München.
Atlas der Krankheiten der Mundhöhle, des Rachens, und der Nase. Von Dr. L. Grünwald in München. 1894. Band IV.

MACLEHOSE, J., & SONS, Glasgow.
Two Great Scotsmen. The Brothers William and John Hunter. By G. R. Mather, M.D., F.F.P.S.G. 1893. pp. 251.

MACMILLAN & Co., London.
Pain, Pleasure, and Æsthetics. By H. R. Marshall, M.A. 1894. pp. 364. Price 8s. 6d. net.

NEWMANN, O., & Co., Newman-street, London.
Illustrated Manual of Hand and Eye Training. On Educational Principles. By Dr. W. Goetze. Illustrated. Only authorised translation. pp. 229. Price 4s.

PENTLAND, YOUNG J., Edinburgh and London.
Atlas of the Diseases of the Skin. By H. Radcliffe Crocker, M.D., F.R.C.P. Fasciculus ii. Price 21s. net.

SPON, E. & F. N., Strand, London.
Induction Coils and Coil Making. By F. C. Allsop. Illustrated. 1894. pp. 162.

WRIGHT, JOHN, & Co., Bristol. SIMPKIN, MARSHALL, & Co., London.
Notes on Nursing in Eye Diseases. By C. S. Jeaffreson, M.D., F.R.C.S.E. 1894. pp. 90. Price 2s. 6d.

The Quarterly Journal of Microscopical Science; January, 1894 (J. & A. Churchill, London).—The Royal Natural History; edited by R. Lydekker, B.A., F.G.S., F.Z.S.; Vol. I., Part 3 (F. Warne & Co., Bedford street, Strand, London); price 1s. net.—Jahrbuch für Kinderheilkunde und Physische Erziehung; Neue Folge; Band 37, Heft 2; Januar, 1894 (B. G. Teubner, Leipzig, 1894).—Archiv für Dermatologie und Syphilis; Band 26, Heft 2; Januar, 1894 (W. Braumüller, Wien und Leipzig).—Handbuch der Kriegschirurgischen Technik; von Dr. F. von Esmarch; Zweiter Band, Operationslehre (Lipsius & Fischer, Kiel und Leipzig, 1894).—The Sanitary Institute: Lectures on the Sanitation of Industries and Occupations (Offices, Parkes' Museum, Margaret-street, London, W., 1893).—Traitement Chirurgical des Abcès du Foie des Pays Chauds, Étude Clinique et Experimentale; par G. Zancarol (G. Steinheil, Paris, 1893).—Anesthésie Physiologique et ses Applications; par le Dr. R. Dubois (Georges Carré, Paris, 1894).—The Cloister and the Hearth; by Chas. Reade, D.C.L.; New Edition (Chatto & Windus, Piccadilly, London, 1894); price 6d.—The Phrenological Annual and Register for 1894; illustrated (L. N. Fowler & Co., Ludgate-circus, London, E.C.); price 6d.—Archives de Physiologie, Normale et Pathologique; No. 1, Janvier, 1894 (G. Masson, Paris).—Précis de Prophylaxie Pratique; par le Dr. M. Delamare (Georges Carré, Paris, 1894).—Scarlatina and Scarlatinal Sore-throat: a Record of Milk Infection; by A. K. Chalmers, M.D., D.P.H. Camb. (R. Anderson, Glasgow, 1894).—The Eleventh Annual Report of the Metropolitan Public Gardens Association, 83, Lancaster-gate, London, W., for the year 1893. Price 6d.—The Local Government Annual: an Official Handbook, 1894; third year of publication (S. Edgecumbe-Rogers, "The Local Government Journal" Office, Dorset-street, Fleet-street, London); price 1s. 6d.—The Effects of the Iodides on Arterial Tension and the Excretion of Urates; by A. Haig, M.A., M.D. Oxon., F.R.C.P. (Adlard & Son, London, 1894).—Arthrodese; by Professor Dr. Max Schüller, Berlin (Urban & Schwarzenberg, Wien und Leipzig, 1894).—Clarke's Civil Service Annual and Calendar for Candidates and Officials; first year, 1894 (Civil Service Book Depôt, 2, Chancery-lane, London); price 2s.—The Liverpool Medico-Chirurgical Journal, including the Proceedings of the Liverpool Medical Institution, No. 26, January, 1894 (H. K. Lewis, London); price 3s. 6d.—Journal de Médecine, de Chirurgie et de Pharmacologie-Annales; tome 2, fascicule 4 (H. Lamertin, Bruxelles, 1894).—Magazines for February: Sunday at Home, Leisure Hour, Boy's Own Paper, Boy's Out-door Games and Recreations, Girl's Own Paper, Girl's Own Out-door Book (Religious Tract Society), the English Illustrated Magazine; The Gentleman's Magazine.

Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY.—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (1 P.M.), St. Mark's (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynecological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.).

TUESDAY.—London (2 P.M.), St. Bartholomew's (1.30 P.M.), Guy's (1.30 P.M.), St. Thomas's (3.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1.30 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.).

WEDNESDAY.—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), Great Northern Central (2.30 P.M.), King's College (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (2.30 P.M.), Great Ormond-street (9.30 A.M.).

THURSDAY.—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (2 P.M.), Chelsea (2 P.M.), Soho-sq. (2 P.M.), North West London (2 P.M.)

FRIDAY.—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.) Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.)

SATURDAY.—Royal Free (9 A.M. and 2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), University College (9.15 A.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), Cancer (2 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

MONDAY.—MEDICAL SOCIETY OF LONDON.—8.30 P.M. Mr. Frederick Treves: Peritonitis. (Second Lettsomian Lecture.)

TUESDAY.—ROYAL MEDICAL AND CHIRURGICAL SOCIETY (20, Hanover-square, W.).—Dr. Kenneth McLeod: Nerve Stretching and Splitting in Localised Interstitial Neuritis, Leprous and otherwise.—Mr. Thomas Bryant: Two cases of Intussusception of the Large Intestine due to the presence of a Papillomatous Growth successfully Reduced by Introduction of the Hand into the Rectum after the Removal of the Growth.

WEDNESDAY.—LARYNGOLOGICAL SOCIETY OF LONDON (20, Hanover-sq., W.).—5 P.M. Dr. Clifford Beale: Tubercular Tumour of Larynx. Mr. Butlin: Tumour of the Thyroid Gland.—Dr. Wm. Hill: Case showing so-called "Cleavage of the Middle Turbinated."—Dr. Felix Semon: Pharyngeal Ulceration of Doubtful Nature in a case of Arrested Pulmonary and Laryngeal Tuberculosis.—Dr. Scanes Spicer: Unilateral Laryngeal Infiltration and Œdema of Undetermined Nature.—Dr. Hale White: Case of Gumma over the Arytenoid Cartilage.—Dr. Willcocks: Gummata of Epiglottis.

HUNTERIAN SOCIETY.—8.30 P.M. Annual General Meeting: Election of Officers. 8.30 P.M. Dr. J. Dundas Grant: Aspects of Medical Life—John Hunter, Andrew Clark.

THURSDAY.—HARVEIAN SOCIETY.—8.30 P.M. Cases shown by Mr. D'A. Power, Mr. Lockwood, Dr. Boxall, and others. 9 P.M. Dr. W. B. Dakin: Modern Methods of Treating Post-partum Hæmorrhage.

SOCIETY OF ANÆSTHETISTS (20, Hanover square).—8.30 P.M. Discussion on the Administration of Anæsthetics in Operations upon the Nose and Throat. Mr. Bailey, Mr. Braine, Mr. Tyrrell, Dr. Buxton, Dr. Hewitt, Mr. Davis, Dr. Silk, and others.

LECTURES AND ADDRESSES.

MONDAY.—LONDON POST-GRADUATE COURSE.—Royal London Ophthalmic Hospital, Moorfields, 1 P.M., Mr. W. Lang: Corneal Affections. London Throat Hospital, Gt. Portland-st., W., 8 P.M., Dr. Whistler: Syphilis of Nose and Pharynx.—Bacteriological Laboratory, King's College, 3 P.M., Prof. Crookshank and Dr. Hewlett: Actinomycosis and Glanders.

ROYAL COLLEGE OF SURGEONS.—5 P.M. Professor C. B. Plowright: The Fungus Kingdom.

THROAT HOSPITAL (Golden-sq., W.).—5 P.M. Dr. J. W. Bond: Laryngeal Tuberculosis.

ST. JOHN'S HOSPITAL FOR SKIN DISEASES (Leicester-sq., W.C.).—6 P.M. Dr. M. Dockrell: Dermatitis Exfoliativa and Pityriasis Rubra Pilaris.

TUESDAY.—LONDON POST-GRADUATE COURSE.—Bethlem Hospital, 2 P.M., Dr. Corner: Alcoholic Insanity.

ROYAL INSTITUTION.—3 P.M. Prof. Charles Stewart: Locomotion and Fixation in Plants and Animals.

WEDNESDAY.—LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton, 4 P.M., Mr. R. J. Godlee: Subdiaphragmatic Abscess.—Royal London Ophthalmic Hospital, Moorfields, 8 P.M., Mr. R. M. Gunn: Cataract.—Hospital for Skin Diseases, Blackfriars, 1 P.M., Dr. Payne: Acne.

ROYAL COLLEGE OF SURGEONS.—5 P.M. Professor C. B. Plowright: The Fungus Kingdom.

THROAT HOSPITAL (Golden-sq., W.).—5 P.M. Dr. Greville MacDonald: Sneezing and Hay Fever.

WEST LONDON HOSPITAL (Hammersmith).—5 P.M. Mr. Swinford Edwards: Carcinoma of the Rectum. (Post-graduate Course.)

THURSDAY.—LONDON POST-GRADUATE COURSE.—Hospital for Sick Children, Gt. Ormond-st., 3.30 P.M., Mr. C. A. Ballance: Clinical Lecture.—National Hospital for Paralysed, Bloomsbury, 2 P.M., Dr. Ormerod: Hemiplegia.—Central London Sick Asylum, Cleveland-st., W., 5.30 P.M., Dr. Patrick Manson: Malarial Disease.

FRIDAY.—LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton, 4 P.M., Dr. E. Symes Thompson: Phthisis and Life Assurance.

ROYAL COLLEGE OF SURGEONS.—5 P.M. Professor C. B. Plowright: The Fungus Kingdom.

LONDON SKIN HOSPITAL (40, Fitzroy-sq., W.C.).—8 P.M. Dr. Barry: Syphilitic Eruptions.

QUEKETT MICROSCOPICAL CLUB (20, Hanover-sq., W.).—8 P.M. Annual Meeting. Address by the President (Mr. E. M. Nelson).

SATURDAY.—LONDON POST-GRADUATE COURSE.—Bethlem Hospital, 11 A.M., Dr. Percy Smith: Climacteric and Senile Insanity.

ROYAL INSTITUTION.—3 P.M. Lord Rayleigh: Light, with special reference to the Optical Discoveries of Newton.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, February 8th, 1894.

		Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radiation Vacuo.	Maximum Temp. Shade.	Min. Temp.	Rainfall.	Remarks at 8.30 A.M.
Feb.	2	30·02	W.	51	50	59	54	26	0·07	Overcast
,,	3	29·97	W.	51	50	82	54	50	0·11	Overcast
,,	4	30·41	W.	42	41	63	51	39	—	Bright
,,	5	30·39	W.	50	49	51	51	41	0·03	Raining
,,	6	30·26	S.W.	45	44	55	54	42	0·27	Overcast
,,	7	29·94	W.	54	52	65	57	45	..	Cloudy
,,	8	30·19	N.W.	48	47	77	51	47	0·05	Bright

Notes, Short Comments & Answers to Correspondents.

EDITORIAL NOTICE.

IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to the Office.

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale and advertising departments of THE LANCET *should be addressed "To the Publisher."*

We cannot undertake to return MSS. not used.

PUBLISHER'S NOTICE.

IN order to facilitate the work of reference to the volumes of THE LANCET, we have arranged to publish duplicate copies of the Index to each half-yearly volume in a form in which they may be subsequently filed or bound together. Those of our subscribers who may wish to be supplied with loose copies can obtain the same (without extra charge) on making application to the Publisher of THE LANCET.

AN OBJECTIONABLE PROPOSAL.

OUR attention has been called to the following letter which is being addressed to many ophthalmic surgeons in the metropolis:—

"Feb. 3rd, 1894.

"Dear Sir,—We are publishing on behalf of a wholesale West-end firm of opticians a chart of the 'Human Eye,' and are desirous of introducing a few portraits of eminent ophthalmic surgeons, with their names, qualifications, &c. Should you have no objections to being one of these gentlemen perhaps you will kindly oblige us with a good photograph (which shall be returned) to make the drawing from, a proof copy of which will be sent you before publication. "Yours faithfully, "———."

M.R.C.S. Ed.—The statement of the case presupposes that A. was not available. We do not feel called on to express any judgment as to the treatment pursued by B. and his assistant or to compare it with that of A. If time had permitted, it would have been well to communicate with A.

THE SODEN FUND.

To the Editors of THE LANCET.

SIRS,—During the last week I have received the following subscriptions to the above fund. I am, Sirs, yours truly,

3, Northampton-terrace, Swansea, Feb. 5th, 1894. W. F. BROOK.

H. Campion	£1	1	0
W. Y. Martin	0	15	0
F. H. Haynes	0	10	6
Thomas Harris	0	10	6
B. Addy	0	10	6
G. Kingsbury	0	10	6
A. H. Hopper	0	10	6
C. Macfie	0	10	6
A. H. Guest	£0	6	0
W. Dambrill Davies	0	5	0
C. Coombs	0	5	0
C. Campbell	0	5	0
G. Harrison	0	5	0
A. Kershaw	0	5	0
Anonymous	0	5	0
J. A. Hoaker	0	5	0

CANITIES IN A CHILD AGED SEVEN YEARS.

E. J. H.—Our correspondent does not make any suggestion as to the cause of the greyness. This should be sought for as regards general health, the antecedent circumstances of the change, &c., and rational treatment would be likely to be successful if the cause could be discovered and obviated or removed. The only empirical remedy which has appeared to have any influence is pilocarpine. For a child five minims of tincture of jaborandi might be given three times a day, watching for any drug symptoms; but the effect is very uncertain. If the canities is a sequel of alopecia areata the colour will return in time.

J. C. K. propounds a very complicated legal question and does not enclose his card.

THE JOURNEY OF A CAT.

To the Editors of THE LANCET.

SIRS,—With your permission I will mention in THE LANCET a short episode in the history of a cat. It is not on medical matters pure and simple about which I wish to write, but it is on a homely topic, nevertheless, that may interest many of your readers. The cat, the subject of this short letter, was born and reared in one of two semi-detached houses on a hill overlooking the well-known and historic racecourse, the Carholme of Lincoln. This house was occupied by a military medical gentleman and his family for six or seven years, and the cat was so great a favourite that last December, when the gentleman removed to Forest Hill, London, the cat was taken to the new home by one of the family. It was put in a comfortable basket and conveyed to its destination by train. For about a month the cat seemed to have been contented and happy, but it was noticed that it ate largely and slept much. Towards the end of the month, however, the cat disappeared, and, after a fruitless search for it, pussy was given up as irretrievably lost. This event took place in the beginning of the severe frost and snowstorm, and before the storm was over the cat turned up at its old home in Lincoln, where, one morning, the gentleman who occupies the other half of the detached villa was aroused by the loud mewings and noise made by the cat to gain admittance to its old, but now empty, home. The gentleman, who knew pussy well, gave it a kind reception, and with him it now passes about a couple of hours daily and spends the rest of the time roaming at will over its old beloved haunts. It is computed that the animal performed the journey in about eight days, travelling at the rate of over seventeen miles per day; and, although the cat was travel-stained and rather thin in flesh, still he was in fairly good condition when it reached Lincoln. When one takes into consideration the distance between Forest Hill and Lincoln, nearly 140 miles, the intense severity of the weather, and the thousand obstacles which the poor creature must have encountered on its way across London and down to Lincoln, the journey is a marvel for so small and weak an animal to have accomplished; but the most wonderful thing of all is what might be called the geographical knowledge possessed by the cat, which enabled it to steer a straight course to Lincoln, although it had been taken to Forest Hill blindfolded. This journey displays the great love the cat had for its old home and verifies the old opinion that cats are more attached to places than to people.

I am, Sirs, yours truly,

Lincoln, Jan. 27th, 1894. WILLIAM O'NEILL, M.D., &c.

"A DISCLAIMER."

WE have received a communication from *Miss Alice I. Beatty* with reference to the letter from Dr. Heywood Smith published in our last issue, in which she reaffirms her original statement made in her evidence given before Mr. Hannay.

B 4.—Useful handbooks have been written by Dr. L. Humphry, Mr. L. Roberts, and Dr. Cullingworth.

"BICARBONATE OF POTASH IN INFLUENZA."

To the Editors of THE LANCET.

SIRS,—I am deeply grateful to you for the prominence you have given to my paper on Influenza which appeared in your issue of the 3rd inst. by drawing attention to it in an annotation. From your last sentence, however, I learn that you have misapprehended my meaning and therefore done me and my treatment unintentional injustice. You say: "We would, however, venture to point out, for the comfort of those who have not had the same results as Mr. Crerar, that he seems to be unable to account for such divergencies save on the well-worn formula that the drug has not been administered in the way it should have been." Is it reasonable that it should be charged against me as a fault, or as an indication of failure, that I should insist on the drug being administered in the dose and dilution I have directed? If thirty grains of bicarbonate of potash, very slightly diluted, be introduced into the stomach, surely I cannot be held responsible for the gastric irritation which must follow. Yet this has been done, and called my treatment, and I am now asked to account for such a "divergency." I have yet to learn that the alkaline treatment of influenza has ever been fairly tried without giving the results I have claimed for it. Apologising for taking up so much of your valuable space (the interests of truth and the importance of the subject seeming to demand it),

I am, Sirs, yours obediently,

Maryport, Feb. 5th, 1894. JOHN CRERAR, M.R.C.P. Edin.

"LA BELLA BASTARDA."

THAT the modern Italian tongue—in Byron's phrase "la bella bastarda"—retains more than any other of her no less illegitimate sisters, the features of the Latin mother tongue would be hardly worth asserting, were it not that an attempt has been made to call the fact in question. A thesis has actually been proposed to the Imperial and Royal Gymnasium of Roveredo (Austrian Tyrol) couched as follows: "Abbaglio di chi crede la lingua Italiana derivata dalla Latina" (Error of him who believes the Italian to be derived from the Latin). To which it is sufficient to cite the following metrical apostrophe to Venice, every word of which is not only good Latin, but good Italian as well:—

"Te saluto, alma Dea, Dea generosa,
O gloria nostra, o Veneta regina!
In procelloso turbine funesto
Tu regnasti secura; mille membra
Intrepida prostrasti in pugna acerba.
Per te miser non fui, per te non gemo,
Vivo in pace per te. Regna, o beata,
Regna in prospera sorte, in alta pompa,
In augusto splendore, in aurea sede.
Tu serena, tu placida, tu pia,
Tu benigna; tu salva, ama, conserva."

There is, in fact, no other European language of the same philological family (neither French, nor Spanish, nor Portuguese, nor Roumanian) in which such a series of lines as those given above would be possible—lines at once modern and classical.

S. M. O. (Radstock).—We regret that we are unable to say. Cesspools are ordinarily emptied either by hand or by pumping.

RAPIDLY FATAL CASE OF SCARLET FEVER.

To the Editors of THE LANCET.

SIRS,—On Monday, Jan. 29th, I was called to see a boy aged seven years and found him suffering from scarlet fever, a well-marked case, with typical rash and sore-throat. From his mother I obtained the following history. The boy had been to school and was in excellent health on Friday; on the following day he complained of feeling unwell and though up and dressed remained in-doors. On Sunday morning he was rather worse, vomited his breakfast, and was sick twice or three times during the day. On Monday his mother, noticing the rash, sent for me, and when I saw him at 10 A.M. his temperature was 103·2° F. and the pulse 120. I ordered him to be isolated and prescribed a saline mixture. At 11.45 P.M. I was summoned hurriedly to the house by the father, who said that the boy was much worse, and on my arrival—in less than ten minutes—the lad was dead, his mother stating that he expired just as her husband left the house for me. As the body felt very hot I took the temperature in the axilla and found it to be 108·2° (fifteen to twenty minutes after death). No change had been noticed in his condition since my morning visit till just before he expired. When the father came for a certificate of death he mentioned casually that the boy had had a severe blow on the side of his head whilst playing at school on Friday, that there was a good deal of swelling at the seat of injury, and that he complained of pain in his head that evening, but played about as usual. On hearing this I communicated with the coroner, who made inquiries, and decided that there was no occasion to hold an inquest. As there was no necropsy it is impossible to say whether the injury to the head in any way interfered with the course of the fever or hastened the fatal termination. Beyond the vomiting on Sunday there was no symptom of brain mischief, and vomiting is a very common premonitory symptom of scarlet fever in children; but, on the other hand, such a rapidly fatal termination is a very unusual occurrence in that disease. Quain says, in his article on Scarlet Fever: "The temperature has reached 111° F. with recovery, and 115° in a fatal case"; but in this case death occurred in less than twenty-four hours after the appearance of the rash, and the temperature about twenty minutes after death was 108·2."

I am, Sirs, yours faithfully,
BARTHOLOMEW LANGRAN, L.R.C.P.Ed., L.R.C.S.I.

Liverpool, Jan. 31st, 1894.

CORONERS' FEES.

To the Editors of THE LANCET.

SIRS,—As is well known, hospital residents receive no remuneration for evidence given at a coroner's court. This seems to me to be in many cases a very unfair arrangement. As house surgeon in a hospital situated in the midst of a populous district, where the industry is cotton, iron, and coal mining, I frequently admit cases of severe accident. If death occurs in any of these cases I am always called upon to give evidence at the inquest, whatever day or time it is fixed for—perhaps on one of my half-holidays. I am not consulted as to whether it will suit me or not. This afternoon, one of my half-days off duty, I was called to appear at the coroner's court at 3 P.M. The inquest was not over till after 7 P.M., and I could not leave till then. For this I received no fee, though the pathologist to the hospital, who gave evidence as to the post-mortem examination, received two guineas. I, although I assisted at the necropsy, received nothing. I shall be very glad if any explanation could be given me as to why hospital residents should be thus treated.—I am, Sirs, yours faithfully,

Feb. 2nd, 1894. HOUSE SURGEON.

MENTAL CONDITIONS IN MYXŒDEMA.

DR. CLOUSTON, in the last number of the *Journal of Mental Science*, gives a short account of nine cases of myxœdema which have come under his observation within the last twenty years. Two were treated by thyroid feeding and recovered, and Dr. Clouston discusses shortly the nature of the mental affection in this disease. In most of the cases there was a general loss of memory; in most also there was special loss of the power of recalling recent events, as well as loss in regard to special points, and in some there were paræsthesiæ of memory. Attention was diminished and curiosity was sluggish in all cases. Hallucinations of sight and hearing were present in several. In every case there was undoubted diminution in the power of intense emotion, there was depression amounting to actual melancholia in the majority, and in the others there was exaltation of feeling in abnormal ways. Intellectual slowness and insane delusions, chiefly of suspicion, were marked features in the majority. Volition was impaired in every case, either in the direction of slowness in putting the will into action or loss of mental inhibition indicated by irritability and anger without adequate cause. The effect of thyroid treatment in the two cases which recovered was very remarkable, so that both patients were discharged cured of their bodily as well as their mental ailments.

Mr. W. H. Coupland (Blackpool).—If our correspondent will refer to Dr. Neale's valuable Digest several references to the hydrofluoric treatment of goitre will be found.

THE DUTY OF THOSE WHO TRANSFER PRACTICES.

To the Editors of THE LANCET.

SIRS,—The following questions must often arise between medical men and sometimes cause great perplexity to those who are unaccustomed to them. It is very desirable to have a clear understanding as to what is just and fair to both sides, and therefore I make free to ask for your judgment upon them. A man sells his practice and makes an agreement never to enter into practice within a certain distance of his old residence without the consent of the purchaser. 1. What is "entering into practice"? Does it include gratuitous work? Does it include acting temporarily as *locum tenens* to another practitioner in the neighbourhood? 2. If the vendor resides outside the prescribed limit, is he at liberty to see and advise any persons residing within it (whether old patients of his or not) who may take the trouble to come over to consult him at his house? 3. Is he at liberty to advise such persons by letter?

I remain yours respectfully,
Jan. 31st, 1894. INQUIRENS.

*** The following are the answers which occur to us to the questions of our correspondent: 1. Generally, yes. Gratuitous work may be very much abused in such circumstances. Certainly, the gentleman selling a practice should not act as *locum tenens* to another practitioner within the prohibited neighbourhood. 2 and 3. He should not see patients who come from the neighbourhood to consult him, or advise them by letter. His answer to such patients should be an expression of willingness to meet in consultation the gentleman he has introduced.—ED. L.

ALUM IN BAKING POWDER.

Mr. W. B. Tegetmeier in a communication on this subject suggests that housekeepers should make their own baking powder, and recommends the following proportion of ingredients as suitable for the purpose: 1 oz. tartaric acid, 2 oz. bicarbonate of soda, and 3 oz. cornflour, stirred together and passed through a fine sieve.

Mr. F. W. Langston Day.—It might be advisable to make inquiries of the medical officer at Droitwitch, where probably rooms may be obtained cheaply.

ERRATUM.—In our obituary notice of the late Mr. Harry Warnell Denton Cardew, M.R.C.S., it is said that Mr. Cardew's investigations showed that the diminution of electrical resistance in Graves' disease "was simply the result of the abnormal resistance of the skin so usual in neuro-cardiac disorders and was not intrinsic to the affection itself." For "resistance" should be read *moisture*. In the preceding sentence "typical" should read *atypical*.

During the week marked copies of the following newspapers have been received:—*Bath Gazette, Irish News, Oldbury Weekly News, Financial News, Preston Herald, Scientific American, Hereford Mercury, Morning, Morning Advertiser, West Sussex Gazette, Weekly Free Press and Aberdeen Herald, Local Government Chronicle, Leeds Mercury, West Middlesex Standard, Sanitary Record, City Press, Reading Mercury, Hertfordshire Mercury, Catholic Times, Gloucestershire Echo, Bristol Mercury, Sunday Times, Builder, Times of India, Architect, Pioneer Mail, Liverpool Daily Post, Yorkshire Post, Local Government Journal, Surrey Advertiser, West Middlesex Advertiser, Weekly Irish Times, Hong Kong Telegraph, Science Siftings, Dundee Advertiser, Waterford Mirror, Star (Guernsey), Citizen, Evesham Journal, Stratford Express, Bath Weekly Herald, Kenilworth Advertiser, Sydenham, Forest-hill, and Penge Gazette, Glasgow Echo, East-end News, Glasgow Herald, Arbroath Herald, Somerset Journal, Herne Bay Argus, Cheltenham Examiner, Medical Record (New York), Torquay Times, &c., &c.*

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